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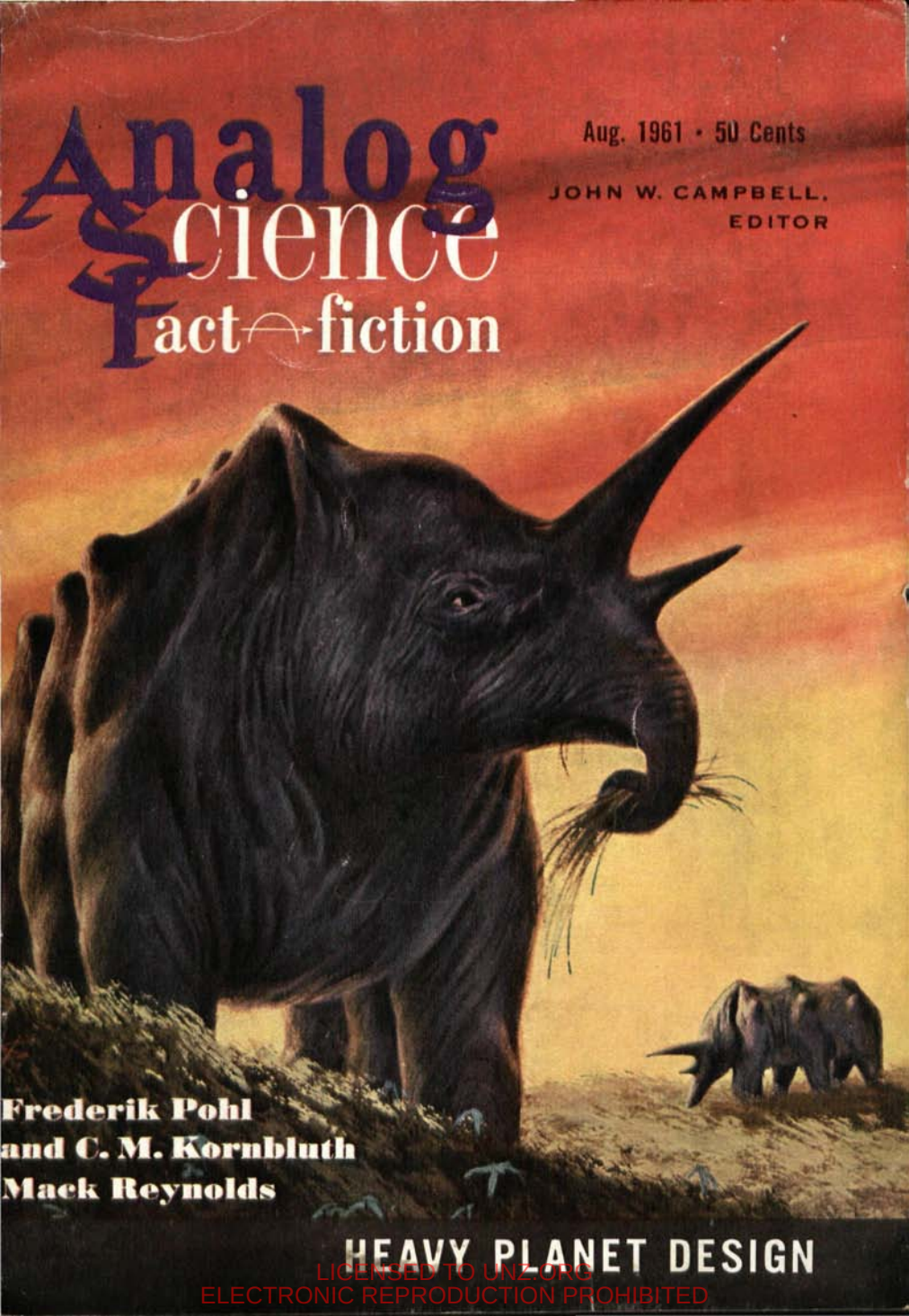

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Analog Science Fact—fiction

VOL. LXVII
NO. 6
AUGUST 1961

Short Novel

Status Quo, *Mack Reynolds* 4

Novelettes

The Quaker Cannon, *Frederik Pohl and C. M. Kornbluth* . 70

Hanging by a Thread, *David Gordon* . . 120

Short Stories

Flamedown, *H. B. Fyfe* 65

Lost in Translation, *Larry M. Harris* . . . 142

Science Fact

Pie in the Sky, *Editorial-Article* 82

The Unwanted Evidence, *Walter B. Gibson* 108

Readers' Departments

In Times to Come 64

The Analytical Laboratory 69

The Reference Library, *P. Schuyler Miller* 162

Brass Tacks 172

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COVER BY SCHOENHERR

Illustrations by Barberis, Douglas, Summers and Schoenherr

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STATUS . .

IN HIS income bracket and in the suburb in which he lived, government employees in the twenty-five to thirty-five age group were currently wearing tweeds. Tweeds were in. Not to wear tweeds was Non-U.

Lawrence Woolford wore tweeds. His suit, this morning, had first seen the light of day on a hand loom in Donegal. It had been cut by a Swede widely patronized by serious young career men in Lawrence Woolford's status group; English tailors were out currently and Italians unheard of.

Woolford sauntered down the walk before his auto-bungalow, scowling at the sportscar at the curb—wrong year, wrong make. He'd have to trade it in on a new model. Which was a shame in a way, he liked the car. However, he had no desire to get a reputation as a weird among colleagues and friends. What was it Senator Carey MacArthur had said the other day? Show me a weird and I'll show you a person who has taken the first step toward being a Commie.

Woolford slid under the wheel, dropped the lift lever, depressed gently the thrust pedal and took off for downtown Greater Washington. Theoretically, he had another four days of vacation coming to him. He won-

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. . QUO

By MACK REYNOLDS

The things a man believes in are practical things —objective, useful-to-him things, really. So he will, of course, when forced to it, sacrifice all his beliefs for the THINGS he believes in!

Illustrated by Schoenherr

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dered what the Boss wanted. That was the trouble in being one of the Boss' favorite trouble shooters, when trouble arose you wound up in the middle of it. Lawrence Woolford was to the point where he was thinking in terms of graduating out of field work and taking on a desk job which meant promotion in status and pay.

He turned over his car to a parker at the departmental parking lot and made his way through the entrance utilized by second-grade departmental officials. In another year, he told himself, he'd be using that other door.

The Boss' reception secretary looked up when Lawrence Woolford entered the anteroom where she presided. "Hello, Larry," she said. "Hear they called your vacation short. Darn shame."

LaVerne Polk was a cute little whizz of efficiency. Like Napoleon and his army, she knew the name of every member of the department and was on a first-name basis with all. However, she was definitely a weird. For instance, styles might come and styles might go, but LaVerne dressed for comfort, did her hair the way she thought it looked best, and wore low-heeled walking shoes on the job. In fact, she was ready and willing to snarl at anyone, no matter how kindly intentioned, who even hinted that her nonconformity didn't help her promotion prospects.

Woolford said, "Hi, LaVerne. I think the Boss is expecting me."

"That he is. Go right in, Larry."

She looked after him when he turned and left her desk. Lawrence Woolford cut a pleasant figure as thirty year old bachelors go.

The Boss looked up from some report on his desk which he'd been frowning at, nodded to his field man and said, "Sit down, Lawrence. I'll be with you in a minute. Please take a look at this while you're waiting." He handed over a banknote.

Larry Woolford took it and found himself a comfortable chair. He examined the bill, front and back. It was a fifty dollar note, almost new.

Finally the Boss, a stocky but impeccable career bureaucrat of the ultra-latest school, scribbled his initials on the report and tossed it into an Out chute. He said to Woolford, "I am sorry to cut short your vacation, Lawrence. I considered giving Walter Foster the assignment, but I think you're the better choice."

Larry decided the faint praise routine was the best tactic, said earnestly about his closest rival. "Walt's a good man, sir." And then, "What's the crisis?"

"What do you think of that fifty?"

His trouble shooter looked down at it. "What is there to think about it?"

The Boss grunted, slid open a desk drawer and brought forth another bill. "Here, look at this, please."

It was another fifty. Larry Woolford frowned at it, not getting whatever was going on.

"Observe the serial numbers," the Boss said impatiently.

They were identical.

Woolford looked up. "Counterfeit. Which one is the bad one?"

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"That is exactly what we would like to know," the Boss said.

Larry Woolford stared at his superior, blinked and then examined the bills again. "A beautiful job," he said, "but what's it got to do with us, sir? This is Secret Service jurisdiction, counterfeiting."

"They called us in on it. They think it might have international ramifications."

Now they were getting somewhere. Larry Woolford put the two bills on the Boss' desk and leaned back in his chair, waiting.

His superior said, "Remember the Nazis turning out American and British banknotes during the Second War?"

"I was just a kid."

"I thought you might have read about it. At any rate, obviously a government with all its resources could counterfeit perfectly any currency in the world. It would have the skills, the equipment, the funds to accomplish the task. The Germans turned out hundreds of millions of dollars and pounds with the idea of confounding the Allied financial basics."

"And why didn't it work?"

"The difficulty of getting it into circulation, for one thing. However, they did actually use a quantity. For a time our people were so alarmed that they wouldn't allow any bills to come into this country from Mexico except two-dollar denomination—the one denomination the Germans hadn't bothered to duplicate. Oh, they had the Secret Service in a dither for a time."

Woolford was frowning. "What's this got to do with our current situation?"

The Boss said, "It is only a conjecture. One of those bills is counterfeit but such an excellent reproduction that the skill involved is beyond the resources of any known counterfeiters. Secret Service wants to know if it might be coming in from abroad, and, if so, from where. If it's a governmental project, particularly a Soviet Complex one, then it comes into the ken of our own particular cloak-and-dagger department."

"Yes, sir," Woolford said. He got up and examined the two bills again. "How'd they ever detect that one was bad?"

"Pure fortune. A bank clerk with an all but eidetic memory was going through a batch of fifties. It's not too commonly used a denomination, you know. Coincidence was involved since in that same sheaf the serial number was duplicated."

"And then?"

"The reproduction was so perfect that Secret Service was in an immediate uproar. Short of the Nazi effort, there has never been anything like it. A perfect duplication of engraving and paper identically the same. The counterfeiters have even evidently gone to the extent of putting a certain amount of artificial wear on the bills before putting them into circulation."

Larry Woolford said, "This is out of my line. How were they able to check further, and how many more did they turn up?"

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"The new I.B.M. sorters help. Secret Service checked every fifty dollar bill in every institution in town both banking and governmental. Thus far, they have located ten bills in all."

"And other cities?"

"None. They've all been passed in Greater Washington, which is suspicious in itself. The amount of expense that has gone into the manufacture of these bills does not allow for only a handful of them being passed. They should be turning up in number. Lawrence, this reproduction is such that a pusher could walk into a bank and have his false currency changed by any clerk."

"Wow," Larry whistled.

"Indeed."

"So you want me to work with Secret Service on this on the off chance that the Soviet Complex is doing us deliberate dirt."

"That is exactly the idea, Lawrence. Get to work, please, and keep in touch with me. If you need support, I can assign Walter Foster or some of the other operatives to assist you. This might have endless ramifications."

Back in the anteroom, Woolford said to the Boss' receptionist, "I'm on a local job, LaVerne, how about assigning me a girl?"

"Can do," she said.

"And, look, tell her to get hold of every available work on counterfeiting and pile it on my desk."

"Right. Thinking of going into business, Larry?"

He grinned down at her. "That's the idea. Keeping up with the Jones clan in this man's town costs roughly twice my income."

LaVerne said disapprovingly. "Then why not give it up? With the classification you've got a single man ought to be able to save half his pay." She added, more quietly, "Or get married and support a family."

"Save half my pay?" Larry snorted. "And get a far out reputation, eh? No thanks, you can't afford to be a weird these days."

She flushed—and damn prettily, Larry Woolford decided. She could be an attractive item if it wasn't for obviously getting her kicks out of being individualistic.

Larry said suddenly, "Look, promise like a good girl not to make us conspicuous and I'll take you to the Swank Room for dinner tonight."

"Is that where all the bright young men currently have to be seen once or twice a week?" she snapped back at him. "Get lost, Larry. Being a healthy, normal woman I'm interested in men, but not necessarily in walking status-symbols."

It was his turn to flush, and, he decided wryly, he probably didn't do it as prettily as she did.

On his way to his office, he wondered why the Boss kept her on. Classically, a secretary-receptionist should have every pore in place, but in her time LaVerne Polk must have caused more than one bureaucratic eyebrow to raise. Efficiency was probably the answer; the Boss couldn't afford to let her go.

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Larry Woolford's office wasn't much more than a cubicle. He sat down at the desk and banged a drawer or two open and closed. He liked the work, liked the department, but theoretically he still had several days of vacation and hated to get back into routine.

Had he known it, this was hardly going to be routine.

He flicked the phone finally and asked for an outline. He dialed three numbers before getting his subject. The phone screen remained blank.

"Hans?" he said. "Lawrence Woolford."

The Teutonic accent was heavy, the voice bluff. "Ah, Larry! You need some assistance to make your vacation? Perhaps a sinister, exotic young lady, complete with long cigarette holder?"

Larry Woolford growled, "How'd you know I was on vacation?"

The other laughed. "You know better than to ask that, my friend."

Larry said, "The vacation is over, Hans. I need some information."

The voice was more guarded now. "I owe you a favor or two."

"Don't you though? Look, Hans, what's new in the Russkie camp?"

The heartiness was gone. "How do you mean?"

"Is there anything big stirring? Is there anyone new in this country from the Soviet Complex?"

"Well now—" the other's voice drifted away.

Larry Woolford said impatiently, "Look, Hans, let's don't waste time fencing, You run a clearing agency for, *ah,* information. You're strictly a businessman, nonpartisan, so to speak. Fine, thus far our department has tolerated you. Perhaps we'll continue to. Perhaps the reason is that we figure we get more out of your existence than we lose. The Russkies evidently figure the same way, the proof being that you're alive and have branches in the capitals of every power on Earth."

"All right, all right," the German said. "Let me think a moment. Can you give me an idea of what you're looking for?" There was an undernote of interest in the voice now.

"No. I just want to know if you've heard anything new anti-my-side, from the other side. Or if you know of any fresh personnel recently from there."

"Frankly, I haven't. If you could give me a hint."

"I can't," Larry said. "Look, Hans, like you say, you owe me a favor or two. If something comes up, let me know. Then I'll owe you one."

The voice was jovial again. "It's a bargain, my friend."

After Woolford had hung up, he scowled at the phone. He wondered if Hans Distelmayer was lying. The German commanded the largest professional spy ring in the world. It was possible, but difficult, for anything in the way of espionage or counter-espionage to develop without his having an inkling.

The phone rang back. It was Steve Hackett of Secret Service on the screen.

Hackett said, "Woolford, you com-

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ing over? I understand you've been assigned to get in our hair on this job."

"Huh," Larry grunted. "The way I hear it, your whole department has given up, so I'm assigned to help you out of your usual fumble-fingered confusion."

Hackett snorted. "At any rate, can you drop over? I'm to work in liaison with you."

"Coming," Larry said. He hung up, got to his feet and headed for the door. If they could crack this thing the first day, he'd take up that vacation where it'd been interrupted and possibly be able to wangle a few more days out of the Boss to boot.

At this time of day, parking would have been a problem, in spite of automation of the streets. He left his car in the departmental lot and took a cab.

The Counterfeit Division of the Secret Service occupied an impressive section of an impressive governmental building. Larry Woolford flashed his credentials here and there, explained to guards and receptionists here and there, and finally wound up in Steve Hackett's office which was all but a duplicate of his own in size and décor.

Steve Hackett himself was a fairly accurate carbon copy of Woolford, barring facial resemblance alone. The fact was, Steve was almost Lincolnesque in his ugliness. Career man, about thirty, good university, crew cut, six foot, one hundred and seventy, earnest of eye. He wore Harris tweed. Larry Woolford made a note of that; possibly herringbone was coming back in. He winced at the thought of a major change in his wardrobe; it'd cost a fortune.

They'd worked on a few cases together before when Steve Hackett had been assigned to the presidential bodyguard and co-operated well.

Steve came to his feet and shook hands. "Thought that you were going to be down in Florida bass fishing this month. You like your work so well you can't stay away, or is it a matter of trying to impress your chief?"

Larry growled, "Fine thing. Secret Service bogs down and they've got to call me in to clean up the mess."

Steve motioned him to a chair and immediately went serious. "Do you know anything about pushing queer, Woolford?"

"That means passing counterfeit money, doesn' it? All I know is what's in the TriD crime shows."

"I can see you're going to be a lot of help. Have you got anywhere at all on the possibility that the stuff might be coming from abroad?"

"Nothing positive," Larry said. "Are you people accomplishing anything?"

"We're just getting underway. There's something off-trail about this deal, Woolford. It doesn't fit into routine."

Larry Woolford said, "I wouldn't think so if the stuff is so good not even a bank clerk can tell the difference."

"That's not what I'm talking about now. Let me give you a run down on standard counterfeiting." The Secret

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Service agent pushed back in his swivel chair, lit a cigarette, and propped his feet onto the edge of a partly open desk drawer. "Briefly, it goes like this. Some smart lad gets himself a set of plates and a platen press and—"

Larry interrupted, "Where does he get the plates?"

"That doesn't matter now," Steve said. "Various ways. Maybe he makes them himself, sometimes he buys them from a crooked engraver. But I'm talking about pushing green goods once it's printed. Anyway, our friend runs off, say, a million dollars worth of fives. But he doesn't try to pass them himself. He wholesales them around netting, say, fifty thousand dollars. In other words, he sells twenty dollars in counterfeit for one good dollar."

Larry pursed his lips. "Quite a discount."

"Um-m-m. But that's safest from his angle. The half dozen or so distributors he sold it to don't try to pass it either. They also are playing it carefully. They peddle it, at say ten to one, to the next rung down the ladder."

"And these are the fellows that pass it, eh?"

"Not even then, usually. These small timers take it and pass it on at five to one to the suckers in the trade, who take the biggest risks. Most of these are professional pushers of the queer, as the term goes. Some, however, are comparative amateurs. Sailors for instance, who buy with the idea of passing it in some foreign port where seamen's money flows fast."

Larry Woolford shifted in his chair. "So what are you building up to?"

Steve Hackett rubbed the end of his pug nose with a forefinger in quick irritation. "Like, I say, that's standard counterfeit procedure. We're all set up to meet it, and do a pretty good job. Where we have our difficulties is with amateurs."

Woolford scowled at him.

Hackett said, "Some guy who makes and passes it himself, for instance. He's unknown to the stool pigeons, has no criminal record, does up comparatively small amounts and dribbles his product onto the market over a period of time. We had one old devil up in New York once who actually *drew* one dollar bills. He was a tremendous artist. It took us years to get him."

Larry Woolford said, "Well, why go into all this? We're hardly dealing with amateurs now."

Steve looked at him. "That's the trouble. We are."

"Are you batty? Not even your own experts can tell this product from real money."

"I didn't say it was being *made* by amateurs. It's being *pushed* by amateurs—or maybe amateur is the better word."

"How do you know?"

"For one thing, most professionals won't touch anything bigger than a twenty. Tens are better, fives better still. When you pass a fifty, the person you give it to is apt to remember

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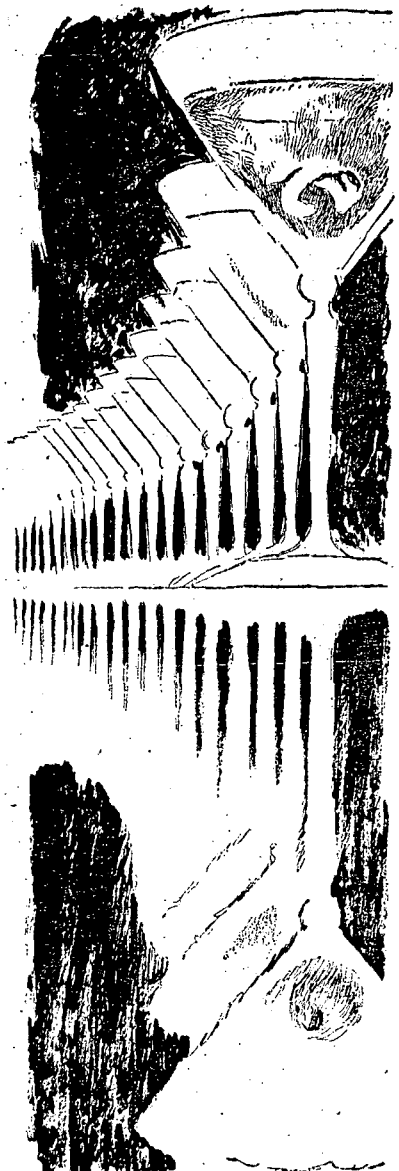

where he got it." Steve Hackett said slowly, "Particularly if you give one as a tip to the *maître d'hôtel* in a first-class restaurant. A *maître d'* holds his job on the strength of his ability to remember faces and names."

"What else makes you think your pushers are amateurs?"

"Amateur," Hackett corrected. "Ideally, a pusher is an inconspicuous type. The kind of person whose face you'd never remember. It's never a teenage girl who's blowing money."

It was time to stare now, and Larry Woolford obliged. "A teenager!"

"We've had four descriptions of her, one of them excellent. Fredrick, the *maître d'* over at La Calavados, is the one that counts, but the others jibe. She's bought perfume and gloves at Michel Swiss, the swankiest shop in town; a dress at Chez Marie—she passed three fifties there—and a hat at Paulette's over on Monroe Street.

"That's another sign of the amateur, by the way. A competent pusher buys a small item and gets change from his counterfeit bill. Our girl's been buying expensive items, obviously more interested in the product than in her change."

"This doesn't seem to make much sense," Larry Woolford protested. "You have any ideas at all?"

"The question is," Hackett said, "where did she get it? Is she connected with one of the embassies and acquired the stuff overseas? If so, that puts it in your lap again possibly—"

The phone rang and Steve flicked the switch and grumbled, "Yeah? Steven Hackett speaking."

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He listened for a moment then banged the phone off and jumped to his feet. "Come on, Larry," he snapped. "This is it."

Larry stood, too. "Who was that?"

"Fredrick, over at La Calvados. The girl has come in for lunch. Let's go!"

La Calvados was the swankiest French restaurant in Greater Washington, a city not devoid of swank restaurants. Only the upper-echelons in governmental circles could afford its tariffs, the clientele was more apt to consist of business mucky-mucks and lobbyists on the make. Larry Woolford had eaten here exactly twice. You could get a reputation spending money far beyond your obvious pay status.

Fredrick, the *maître de hôtel,* however, was able to greet them both by name. "Monsieur Hackett, Monsieur Woolford," he bowed. He obviously didn't approve of La Calvados being used as a hangout where counterfeiters were picked up by the authorities.

"Where is she?" Steve said, looking out over the public dining room.

Fredrick said, unprofessionally agitated, "See here, Monsieur Hackett, you didn't expect to, ah, arrest the young lady *here* during our lunch hour?"

Steve looked at him impatiently. "We don't exactly beat them over the head with blackjacks, slip the bracelets on and drag them screaming to the paddywagon."

"Of course not, monsieur, but—"

Larry Woolford's chief dined here several times a week and was probably on the best of terms with Fredrick whose decisions on tables and whose degree of servility had a good deal of influence on a man's status in Greater Washington. Larry said wearily, "We can wait until she leaves. Where is she?"

Fredrick had taken them to one side.

"Do you see the young lady over near the window on the park? The rather gauche appearing type?"

It was a teenager, all right. A youngster up to her eyebrows in the attempt to project sophistication.

Steve said, "Do you know who she is?"

"No," Fredrick said. "Hardly our usual clientele."

"Oh?" Larry said. "She looks like money."

Fredrick said, "The dress appears as though it is of Chez Marie, but she wears it as though it came from Klein's. Her perfume is Chanel, but she has used approximately three times the quantity one would expect."

"That's our girl, all right," Steve murmured. "Where can we keep an eye on her until she leaves?"

"Why not at the bar here, Messieurs?"

"Why not?" Larry said. "I could use a drink."

Fredrick cleared his throat. "Ah, Messieurs, that fifty I turned over to you. I suppose it turned out to be spurious?"

Steve grinned at him. "Afraid so, Fredrick. The department is holding it."

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Larry took out his wallet. "However, we have a certain leeway on expenses on this assignment and appreciate your co-operation." He handed two twenties and a ten to the *maitre d'*. Fredrick bowed low, the money disappearing into his clothes magically. *"Merci bien,* monsieur."

At the bar, Steve scowled at his colleague. "Ha!" he said. "Why didn't I think of that first? He'll get down on his knees and bump his head each time he sees you in the joint from now on."

Larry Woolford waggled a finger at the other. "This is a status conscious town, my boy. Prestige means everything. When I take over my Boss' job, maybe we can swing a transfer and I'll give you a position suitable to your attainments." He pursed his lips judiciously. "Although, come to think of it, that might mean a demotion from the job you're holding now."

"Vodka martini," Steve told the bartender. "Polish vodka, of course."

"Of course, sir."

Larry said, "Same for me."

The bartender left and Steve muttered, "I hate vodka."

"Yeah," Larry said. "But what're you going to do in a place like this, order some weird drink?"

Steve dug into his pocket for money. "We're not going to have to drink them. Here she comes."

She walked with her head held high, hauteur in every step. Ignoring the peasants at the tables she passed.

"Holy smokes," Steve grunted. "It's a wonder Frederick let her in."

She hesitated momentarily before the doorway of the prestige restaurant allowing the passers-by to realize she'd just emerged, and then turned to her right to promenade along the shopping street.

Fifty feet below La Calvados, Steve said, "Let's go, Woolford."

One stepped to one elbow, the other to the other. Steve said quietly, "I wonder if we could ask you a few questions?"

Her eyebrows went up, "I *beg* your pardon!"

Steve sighed and displayed the badge pinned to his wallet, keeping it inconspicuous. "Secret Service, Miss," he murmured.

"Oh, devil," she said. She looked up at Larry Woolford, then back at Steve.

Steve said, "Among other things, we're in charge of counterfeit money."

She was about five foot four in her heels, had obviously been on a round of beauty shops and had obviously instructed them to glamorize her. It hadn't come off. She still looked as though she'd be more at home as cheerleader of the junior class in a small town high school. She was honey blond, green-blue of eye, and had that complexion they seldom carry even into the twenties.

"I . . . I don't know what you're talking about." Her chin began to tremble.

Larry said gently, "Don't worry. We just want to ask you some questions."

"Well . . . like what?" She was

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going to be blinking back tears in a moment. At least Larry hoped she'd blink them back. He'd hate to have her start howling here in public.

Larry said, "We think you can be of assistance to the government, and we'd like your help."

Steve rolled his eyes upward, but turned and waved for a street level cab.

In the cab, Larry said, "Suppose we go over to my office, Steve?"

"O.K. with me," Steve muttered, "but by the looks of the young lady here, I think it's a false alarm from your angle. She's obviously an American. What's your name, Miss?"

"It's Zusanette. Well, really, Susan."

"Susan what?"

"I . . . I'm not sure I want to tell you. I . . . I want a lawyer."

"A lawyer!" Steve snorted. "You mean you want the juvenile authorities, don't you?"

"Oh, what a mean thing to say," she sputtered.

In the corridor outside the Boss' suite of offices, Larry said to Steve, "You take Miss . . . ah, Zusanette to my office, will you Steve. I'll be there in a minute."

He opened the door to the anteroom and said, "LaVerne, we've got a girl in my office—"

"Why, Larry!"

He glowered at her. "A suspect. I want a complete tape of everything said. As soon as we're through, have copies made, at least three or four."

"And, who, Mr. Woolford, was your girl Friday last year?"

"This is important, honey. I suppose you've supplied me with a secretary but I haven't even met her yet. Take care of it, will you?"

"Sure enough, Larry."

He followed Steve and the girl to his office.

Once seated, the girl and Steve in the only two extra chairs the cubicle boasted and Larry behind his desk, he looked at her in what he hoped was reassurance. "Just tell us where you got the money, Zusanette."

Steve reached out a hand suddenly and took her bag from her lap. She gasped and snatched at it, but he eluded her and she sat back, her chin trembling again.

Steve came up with a thick sheaf of bills, the top ones, at least, all fifties and tossed them to Larry's desk. He took out a school pass and read, "Susan Self, Elwood Avenue." He looked up at Larry and said, "That's right off Eastern, near Paterson Park in the Baltimore section of town, isn't it?"

Larry said to her, "Zusanette, I think you'd better tell us where you got all this money."

"I found it," she said defiantly. "You can't do anything to me if I simply found it. Anybody can find money. Finders keepers—"

"But if it's counterfeit," Steve interrupted dryly, "it might also be, finders weepers."

"Where did you find it, Zusanette?" Larry said gently.

She tightened her lips, and the trembling of her chin disappeared. "I . . . I can't tell you that. But it's

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not counterfeit. Daddy . . . my father said it was as good as any money the government prints."

"That it is," Steve said sourly. "But it's still counterfeit, which makes it very illegal indeed to spend, Miss Self."

She looked from one of them to the other, not clear about her position. She said to Larry, "You mean it's not *real* money?"

He kept his tone disarming, but shook his head. "I'm afraid not, Zusanette. Now, tell us, where did you find it?"

"I can't. I promised."

"I see. Then you don't know to whom it originally belonged?"

"It didn't belong to anybody."

Steve Hackett made with a disbelieving whistle. He was taking the part of the tough, suspicious cop; Larry the part of the understanding, sympathetic officer, trying to give the suspect a break.

Susan Self turned quickly on Steve. "Well, it didn't. You don't even know."

Larry said, "I think she's telling the truth, Steve. Give her a chance. She's playing fair." He looked back at the girl, and frowned his puzzlement. "All money belongs to *somebody* doesn't it?"

She had them now. She said superiorly, "Not necessarily to somebody. It can belong to, like, an organization."

Steve grunted skepticism. "I think we ought to arrest her," he said.

Larry held up a hand, his face registering opposition. "I'll handle this," he said sharply. "Zusanette is doing everything she can to co-operate." He turned back to the girl. "Now, the question is, what organization did this money belong to?"

She looked triumphantly at Steve Hackett. "It belonged to the Movement."

They both looked at her.

Steve said finally, "What movement?"

She pouted in thought. "That's the only name they call it."

"Who's they?" Steve snapped nastily.

"I . . . I don't know."

Larry said, "Well, you already told us your father was a member, Zusanette."

Her eyes went wide. "I did? I shouldn't have said that." But she evidently took him at his word.

Larry said encouragingly, "Well, we might as well go on. Who else is a member of this Movement besides your father?"

She shifted in her chair uncomfortably. "I don't know any of their names."

Steve looked down at the school pass in his hands. He said to Larry, "I'd better make a phone call."

He left.

Larry said, "Don't worry about him, Zusanette. Now then, this *movement*. That's kind of a funny name, isn't it? What does it mean?"

She was evidently glad that the less than handsome Steve Hackett had left the room. Her words flowed more freely. "Well, Daddy says that they

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call it the Movement rather than a revolution . . ."

An ice cube manifested itself in the stomach of Lawrence Woolford.

". . . Because people get conditioned, like, to words. Like revolution. Everybody is against the word because they all think of killing and everything, and, Daddy says, there doesn't have to be any shooting or killing or anything like that at all. It just means a fundamental change in society. And, Daddy says, take the word propaganda. Everybody's got to thinking that it automatically means lies, but it doesn't at all. It just means, like, the arguments you use to convince people that what you stand for is right and it might be lies or it might not. And, Daddy says, take the word socialism. So many people have the wrong idea of what it means that the socialists ought to scrap the word and start using something else to mean what they stand for."

Larry said gently, "Your father is a socialist?"

"Oh, no."

He nodded in understanding. "Oh, a Communist, eh?"

Susan Self was indignant. "Daddy thinks the Communists are strictly awful, really weird."

Steve Hackett came back into the office. He said to Larry, "I sent a couple of the boys out to pick him up."

Susan was on her feet, a hand to mouth. "You mean my father! You're going to arrest him!"

Larry said soothingly, "Sit down, Zusanette. There's a lot of things about this that I'm sure your father can explain." He said to Steve, "She tells me that the money belonged to a movement. A revolutionary movement which doesn't use the term revolutionary because people react unfavorably to that word. It's not Commie."

Susan said indignantly, "It's American, not anything foreign!"

Steve growled, "Let's get back to the money. What's this movement doing with a lot of counterfeit bills and where did you find them?"

She evidently figured she'd gone too far now to take a stand. "It's not Daddy's fault," she said. "He took me to headquarters twice."

"Where's headquarters?" Larry said, trying to keep his voice soothing.

"Well . . . I don't know. Daddy was awfully silly about it. He tied his handkerchief around my eyes near the end. But the others complained about me anyway, and Daddy got awfully mad and said something about the young people of the country participating in their emancipation and all, but the others got mad, too, and said there wasn't any kind of help I could do around headquarters anyway, and I'd be better off in school. Everybody got awfully mad, but after the second time Daddy promised not to take me to headquarters any more."

"But where did you find the money, Zusanette?" Larry said.

"At headquarters. There's tons and tons of it there."

Larry cleared his throat and said, "When you say tons and tons, you mean a great deal of it, eh?"

She was proudly definite. "I mean

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tons and tons. A ton is two thousand pounds."

"Look, Zusanette," Larry said reasonably. "I don't know how much money weighs, exactly, but let's say a pound would be, say, a thousand bills." He took up a pencil and scribbled on a pad before him. "A pound of fifties would be $50,000. Then if you multiply that by 2,000 pounds to make a ton you'd have $100,000,000. And you say there's tons and tons?"

"And that's just the fifties," Susan said triumphantly. "So you can see the two little packages I picked up aren't really important at all. It's just like I found them."

"I don't think there's quite a thousand bills in a pound," Steve said weakly.

Larry said, "How much other money is there?"

"Oh, piles. Whole rooms. Rooms after rooms. And hundred dollar bills, and twenties, and fives, and tens—"

Larry said, "Look Zusanette, everythink you're in any position to be telling us whoppers. This whole story doesn't make much sense, does it?"

Her mouth tightened. "I'm not going to say anything more until Daddy gets here, anyway," she said.

Which was when the phone rang.

"I have an idea that's for me," Steve said.

The screen lit up and LaVerne Polk said, "Call for Steve Hackett, Larry."

Larry pushed the phone around so Steve could look into it. LaVerne flicked off and was replaced by a stranger in uniform. Steve said, "Yeah?"

The cop said, "He's flown the coop, sir. Must have got out just minutes before we arrived. Couldn't have taken more than a suitcase. Few papers scattered around the room he used for an office."

Susan gasped. "You mean Daddy?"

Steve Hackett rubbed a hand over his flattened nose. "Holy Smokes," he said. He thanked the cop and flicked off.

Larry said, "Look Zusanette, everything's going to be all right. Nothing will happen to you. You say you managed to pick up two packets of all this money they have at headquarters. O.K. So you thought it wouldn't be missed and you've always wanted to spend money the way you see the stars do on TriD and in the movies."

She looked at him, taken back. "How did you know?"

Larry said dryly, "I've always wanted to myself. But I would like to know one more thing. The Movement. What was it going to do with all this money?"

That evidently puzzled her. "The Professor said they were going to spend it on chorus girls. I guess . . . I guess he was joking or something. But Daddy and I'd just been up to New York and we saw those famous precision dancers at the New Roxy Theatre and all and then when we got back the Professor and Daddy were talking and I heard him say it."

Steve said, carefully, "Professor who?"

Susan said, "Just the Professor. That's all we ever call him." Her chin went to trembling still again.

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Larry summed it up for the Boss later.

His chief scoffed his disbelief. "The child is full of dreams, Lawrence. It comes from seeing an over-abundance of these TriD shows. I have a girl the same age. I don't know what is happening to the country. They have no sense of reality."

Larry Woolford said mildly, "Well, she might be full of nonsense, but she did have the fifties, and she's our only connection with whoever printed them whether it's a movement to overthrow the government, or what."

The Boss said tolerantly, "Movement, indeed. Obviously, her father produced them and she purloined a quantity before he was ready to attempt to pass them. Have you a run down on him yet?"

"Susan Self says her father, Ernest Self, is an inventor. Steve Hackett is working on locating him."

"He's an inventor indeed. Evidently, he has invented a perfect counterfeiting device. However, that is the Secret Service's headache, not ours. Do you wish to resume that vacation of yours, Lawrence?"

His operative twisted his face in a grimace. "Sure, I do, but I'm not happy about this, sir. What happens if there really is an organization, a Movement, like she said? That brings it back under our jurisdiction, anti-subversion."

The other shook his head tolerantly. "See here, Lawrence, when you begin scheming a social revolution you can't plan on an organization composed of a small number of persons who keep their existence secret. In spite of what a good many persons seem to believe, revolutions are not accomplished by handfuls of conspirators hiding in cellars and eventually overthrowing society by dramatically shooting the President, or King, or Czar, or whoever. Revolutions are precipitated by masses of people. People who have ample cause to be 'The Prince,' the 'Discourses' and current government happens to be. Usually, they are on the point of actual starvation. Have you ever read Machiavelli?"

Niccolo Machiavelli was currently *the thing* to read. Larry said with a certain dignity, "I've gone through 'The Prince,' the 'Discourses' and currently I'm amusing myself with his 'History of Florence.'"

"Anybody who can amuse himself reading Machiavelli," the Boss said dryly, "has a macabre sense of humor. At any rate, what I was alluding to was where he stated that the Prince cannot rule indefinitely in the face of the active opposition of his people. Therefore, the people always get a government that lies within the limits of their tolerance. It may be on one edge or the other of their limits of tolerance—but it's always within their tolerance zone."

Larry frowned and said, "Well, what's your point, sir?"

The Boss said patiently, "I'm just observing that cultures aren't overthrown by little handfuls of secret conspirators. You might eliminate a few individuals in that manner, in other words change the personnel of

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the government, but you aren't going to alter a socio-economic system. That can't be done until your people have been pushed outside their limits of tolerance. Very well then. A revolutionary organization must get out and propagandize. It has got to convince the people that they are being pushed beyond endurance. You have got to get the *masses* to moving. You have got to give speeches, print newspapers, books, pamphlets, you have got to send your organizers out to intensify interest in your program."

Larry said, "I see what you mean. If this so-called Movement actually existed it couldn't expect to get anywhere as long as it remained secret."

The Boss nodded. "That is correct. The *leaders* of a revolutionary movement might be intellectuals, social scientists, scholars—in fact they usually are—take our own American Revolution with Jefferson, Madison, Franklin, Washington. Or the French Revolution with Robespierre, Danton, Marat. For that matter, take Marx, Engels and Lenin. All were well educated intellectuals from the middle class. But the revolution itself, once it starts, comes from below, from the mass of people pushed beyond tolerance."

It came to Lawrence Woolford that his superior had achieved to his prominent office not through any fluke. He knew what he was talking about.

The Boss wound it up. "If there was such an organization as this Movement, then this department would know about it. You don't keep a revolutionary movement secret. It doesn't make sense to even try. Even if it is forced underground, it makes as much noise as it can."

His trouble shooter cleared his throat. "I suppose you're right, sir." He added hesitantly. "We could always give Susan Self a few drops of Scop-Serum, sir."

The Boss scowled disapprovingly. "You know how the Supreme Court ruled on that, Lawrence. And particularly since the medics revealed its effect on reducing sexual inhibitions. No, Mr. Hackett and Secret Service will have to get the truth out of the girl by some other means. At any rate, it is out of our hands."

Larry came to his feet. "Well, then, I'll resume my vacation, eh?"

His chief took up a report from his desk and frowned at it, his attention already passing to other matters. He grunted, "Clear it with LaVerne, please. Tell her I said to take another week to make up for our intruding on you in this manner."

In the back of his head, Larry Woolford had misgivings. For one thing, where had the kid, who on the face of her performance was no great brain even as sixteen or seventeen olds go, picked up such ideas as the fact that people developed prejudices against words like revolution and propaganda?

However, he was clear of it now. Let Steve Hackett and his people take over. He, Lawrence Woolford, was due for a quick return to Astor, Flor-

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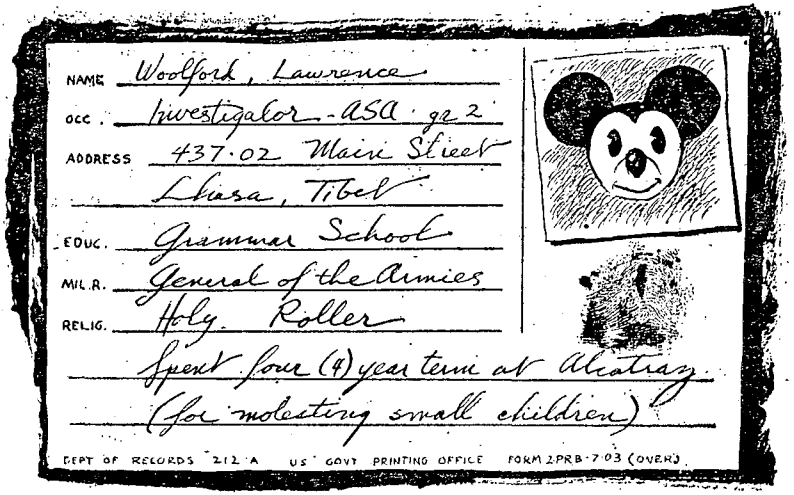
NAME Woolford, Lawrence
OCC. Investigator - ASA gr 2
ADDRESS 437-02 Main Street
Lhasa, Tibet
EDUC. Grammar School
MIL.R. General of the Armies
RELIG. Holy Roller
Spent four (4) year term at Alcatraz.
(For molesting small children)
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ida and the best bass fishing on the St. Johns River.

He stopped at LaVerne's desk and gave her his address to be, now that his vacation was resumed.

She said, smiling up at him. "Right. The Boss already told me to get in touch with Secret Service and let them know we're pulling out. What happened to Susan Self?"

Larry looked at her. "How'd you know about Susan?"

Her tone was deprecating. "Remember? You had me cut some tapes on you and that hulking Steve Hackett grilling the poor kid."

Larry snorted. "Poor kid, yet. With her tastes for living-it-up, and that father she has, she'll probably spend the rest of her life getting in Steve's hair as a counterfeit pusher."

"What are they going to do with her? She's just a child."

The agent shrugged. "I feel sorry for her, too, LaVerne. Steve's got her in a suite at the Greater Washington Hilton, until things are cleared up. They don't want the newspapers to get wind of this until they've got that inventor father of hers and whatever he's cooked up to turn out perfect reproductions of Uncle Sam's money. Look, I won't be leaving until tomorrow. What'd you say we go out on the town tonight?"

"Why, Larry Woolford. How nice of you to ask *me*. Poor little, Non-U me. What did you have in mind? I understand Mort Lenny's at one of the night clubs."

Larry winced. "You know what he's been saying about the administration."

She smiled sweetly at him.

Larry said, "Look, we could take in the Brahms concert, then—"

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"Do you like Brahms? I go for popular music myself. Preferably the sort of thing they wrote back in the 1930s. Something you can dance to, something you know the words to. Corny, they used to call it. Remember 'Sunny Side of the Street,' and 'Just the Way You Look Tonight'."

Larry winced again. He said, "Look, I admit, I don't go for concerts either but it doesn't hurt you to—"

"I know," she said sweetly. "It doesn't hurt for a bright young bureaucrat to be seen at concerts."

"How about Dixieland?" he said. "It's all the thing now."

"I like corn. Besides, my wardrobe is all out of style. Paris, London, and Rome just got in a huddle a couple of weeks ago and antiquated everything I own. You wouldn't want to be seen with a girl a few weeks out of date, would you?"

"Oh, now, LaVerne, get off my back." He thought about it. "Look, you must have *something* you could wear."

"Get out of here, you vacant minded conformist! I *like* Mort Lenny, he makes me laugh; I *hate* vodka martinis, they give me sour stomach; I don't *like* the current women's styles, nor the men's either." LaVerne spun back to her auto-typer and began to dictate into it.

Larry glared down at her. "All right. O.K. What *do* you like?"

She snapped back irrationally, "I like what *I* like."

He laughed at her in ridicule.

This time she glared at him. "That makes more sense than you're capable of assimilating, Mr. Walking Status Symbol. My likes and dislikes aren't dictated by someone else. If I like corny music, I'll listen to it and the devil with Brahms or Dixieland or anything else that somebody else tells me is all the thing!"

He turned on his heel angrily. "O.K., O.K., it takes all sorts to make a world, weirds and all."

"One more label to hang on people," she snarled after him. "Everything's labels. Be sure and never come to any judgments of your own!"

What a woman! He wondered why he'd ever bothered to ask her for a date. There were so many women in this town you waded through them, and here he was exposing himself to be seen in public with a girl everybody in the department knew was as weird as they came. It didn't do your standing any good to be seen around with the type. He wondered all over again why the Boss tolerated her as his receptionist-secretary.

He got his car from the parking lot and drove home at a high level. Ordinarily, the distance being what it was, he drove in the lower and slower traffic levels but now his frustration demanded some expression.

Back at his suburban auto-bungalow, he threw all except the high priority switch and went on down into his small second cellar den. He didn't really feel like a night on the town anyway. A few vodka martinis under his belt and he'd sleep late and he wanted to get up in time for an early start for Florida. Besides, in that

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respect he agreed with the irritating wench. Vermouth was never meant to mix with Polish vodka. He wished that Sidecars would come back.

In his den, he shucked off his jacket, kicked off his shoes and shuffled into Moroccan slippers. He went over to his current reading rack and scowled at the paperbacks there. His culture status books were upstairs where they could be seen. He pulled out a western, tossed it over to the cocktail table that sat next to his chair, and then went over to the bar.

Up above in his living room, he had one of the new autobars. You could dial any of more than thirty drinks. Autobars were all the rage. The Boss had one that gave a selection of a hundred. But what difference did it make when nobody but eccentric old-timers or flighty blondes drank anything except vodka martinis? He didn't like autobars anyway. A well mixed drink is a personal thing, a work of competence, instinct and art, not something measured to the drop, iced to the degree, shaked or stirred to a mathematical formula.

Out of the tiny refrigerator he brought a four-ounce cube of frozen pineapple juice, touched the edge with his thumbnail and let the ultra thin plastic peel away. He tossed the cube into his mixer, took up a bottle of light rum and poured in about two ounces. He brought an egg from the refrigerator and added that. An ounce of whole milk followed and a teaspoon of powdered sugar. He flicked the switch and let the conglomeration froth together.

He poured it into a king-size highball glass and took it over to his chair. Vodka martinis be damned, he liked a slightly sweet long drink.

He sat down in the chair, picked up the book and scowled at the cover. He ought to be reading that Florentine history of Machiavelli's, especially if the Boss had got to the point where he was quoting from the guy. But the heck with it, he was on vacation. He didn't think much of the Italian diplomat of the Renaissance anyway; how could you be that far back without being dated?

He couldn't get beyond the first page or two.

And when you can't concentrate on a Western, you just can't concentrate.

He finished his drink, went over to his phone and dialed *Department of Records* and then *Information*. When the bright young thing answered, he said, "I'd like the brief on an Ernest Self who lives on Elwood Avenue, Baltimore section of Greater Washington. I don't know his code number."

She did things with switches and buttons for a moment and then brought a sheet from a delivery chute. "Do you want me to read it to you, sir?"

"No, I'll scan it," Larry said.

Her face faded to be replaced by the brief on Ernest Self.

It was astonishingly short. *Records* seemed to have slipped up on this occasion. A rare occurrence. He considered requesting the full dossier, then changed his mind. Instead he dialed

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the number of the *Sun-Post*, and asked for its science columnist.

Sam Sokolski's puffy face eventually faded in.

Larry said to him sourly, "You drink too much. You can begin to see the veins breaking in your nose."

Sam looked at him patiently.

Larry said, "How'd you like to come over and toss back a few tonight?"

"I'm working. I thought you were on vacation."

Larry sighed. "I am," he said. "O.K., so you can't take a night off and lift a few with an old buddy."

"That's right. Anything else, Larry?"

"Yes. Look, have you ever heard of an inventor named Ernest Self?"

"Sure I've heard of him. Covered a hassle he got into some years ago. A nice guy."

"I'll bet," Larry said. "What does he invent, something to do with printing presses, or something?"

"Printing presses? Don't you remember the story about him?"

"Brief me," Larry said.

"Well—briefly does it—it got out a couple of years ago that some of our rocketeers had bought a solid fuel formula from an Italian research outfit for the star probe project. Paid them a big hunk of Uncle's change for it. So Self sued."

Larry said, "You're being *too* brief. What d'ya mean, he sued? Why?"

"Because he claimed he'd submitted the same formula to the same agency a full eighteen months earlier and they'd turned him down."

"Had he?"

"Probably."

Larry didn't get it. "Then why'd they turn him down?"

Sam said, "Oh, the government boys had a good alibi. Crackpots turn up all over the place and you have to brush them off. Every cellar scientist who comes along and says he's got a new super-fuel developed from old coffee grounds can't be given the welcome mat. Something was wrong with his math or something and they didn't pay much attention to him. Wouldn't even let him demonstrate it. But it was the same formula, all right."

Larry Woolford was scowling. "Something wrong with his math? What kind of a degree does he have?"

Sam grinned in memory. "I got a good quote on that. He doesn't have any degree. He said he'd learned to read by the time he'd reached high school and since then he figured spending time in classrooms was a matter of interfering with his education."

"No wonder they turned him down. No degree at all. You can't get anywhere in science like that."

Sam said, "The courts rejected his suit but he got a certain amount of support here and there. Peter Voss, over at the university, claims he's one of the great intuitive scientists, whatever that is, of our generation."

"Who said that?"

"Professor Voss. Not that it makes any difference what he says. Another crackpot."

After Sam's less than handsome face

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was gone from the phone, Larry walked over to the bar with his empty glass and stared at the mixer for several minutes. He began to make himself another flip, but cut it short in the middle, put down the ingredients and went back to the phone to dial *Records* again.

He went through first the brief and then the full dossier on Professor Peter Luther Voss. Aside from his academic accomplishments, particularly in the fields of political economy and international law, and the dozen or so books accredited to him, there wasn't anything particularly noteworthy. A bachelor in his fifties. No criminal record of any kind, of course, and no military career. No known political affiliations. Evidently a strong predilection for Thorsten Veblen's theories. And he'd been a friend of Henry Mencken back when that old nonconformist was tearing down contemporary society seemingly largely for the fun involved in the tearing.

On the face of it, the man was no radical, and the term "crackpot" which Sam had applied was hardly called for.

Larry Woolford went back to the bar and resumed the job of mixing his own version of a rum flip.

But his heart wasn't in it. *The Professor,* Susan had said.

Before he'd gone to bed the night before, Larry Woolford had ordered a seat on the shuttle jet for Jacksonville and a hover-cab there to take him to Astor, on the St. Johns River. And he'd requested to be wakened in ample time to get to the shuttleport.

But it wasn't the saccharine pleasant face of the Personal Service operator which confronted him when he grumpily answered the phone in the morning. In fact, the screen remained blank.

Larry decided that sweet long drinks were fine, but that anyone who took several of them in a row needed to be candled. He grumbled into the phone, "All right, who is it?"

A Teutonic voice chuckled and said, "You're going to have to decide whether or not you're on vacation, my friend. At this time of day, why aren't you at work?"

Larry Woolford was waking up. He said, "What can I do for you, Distelmayer?" The German merchant-of-espionage wasn't the type to make personal calls.

"Have you forgotten so soon, my friend?" the other chuckled. "It was I who was going to do you a favor." He hesitated momentarily, before adding, "In possible return for future—"

"Yeah, yeah," Larry said. He was fully awake now.

The German said slowly, "You asked if any of your friends from, ah, abroad were newly in the country. Frol Eivazov has recently appeared on the scene."

Eivazov! In various respects, Larry Woolford's counterpart. Hatchetman for the *Chrezvychainaya Komissiya.* Woolford had met him on occasion when they'd both been present at international summit meetings, busily working at counter-espionage for their respective superiors. Blandly

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shaking hands with each other, blandly drinking toasts to peace and international co-existence, blandly sizing each other up and wondering if it'd ever come to the point where one would *blandly* treat the other to a hole in the head, possibly in some dark alley in Havana or Singapore, Leopoldville or Saigon.

Larry said sharply, "Where is he? How'd he get in the country?"

"My friend, my friend," the German grunted good-humoredly. "You know better than to ask the first question. As for the second, Frol's command of American-English is at least as good as your own. Do you think his *Komissiya* less capable than your own department and unable to do him up suitable papers so that he could be, perhaps, a 'returning tourist' from Europe?"

Larry Woolford was impatient with himself for asking. He said now, "It's not important. If we want to locate Frol and pick him up, we'll probably not have too much trouble doing it."

"I wouldn't think so," the other said humorously. "Since 1919, when they were first organized, the so-called Communists in this country, from the lowest to the highest echelons, have been so riddled with police agents that a federal judge in New England once refused to prosecute a case against them on the grounds that the party was a United States government agency."

Larry was in no frame of mind for the other's heavy humor. "Look, Hans," he said, "what I want to know is what Frol is over here for."

"Of course you do," Hans Distelmayer said, unable evidently to keep note of puzzlement from his voice. "Larry," he said, "I assume your people know of the new American underground."

"*What* underground?" Larry snapped.

The professional spy chief said, his voice strange, "The Soviets seem to have picked up an idea somewhere, possibly through their membership in this country, that something is abrewing in the States: That a change is being engineered."

Larry stared at the blank phone screen.

"What kind of a change?" he said finally. "You mean a change to the Soviet system?" Surely not even the self-deluding Russkies could think it possible to overthrow the American socio-economic system in favor of the Soviet brand.

"No, no, no," the German chuckled. "Of course not. It's not of their working at all."

"Then what's Frol Eivazov's interest, if they aren't engineering it?"

Distelmayer rumbled his characteristic chuckle which held nothing in common with humor. "My dear friend, don't be naive. Anything that happens in America is of interest to the Soviets. There is delicate peace between you now that they have changed their direction and are occupying themselves largely with the economic and agricultural development of Asia and such portions of the world as have come under their hegemony, and while you put all ef-

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forts into modernizing the more backward countries among *your* satellites."

Larry said automatically, "Our allies aren't satellites."

The spy-master went on without contesting the statement. "There is immediate peace but surely governmental officials on both sides keep careful watch on the internal developments of the other. True, the current heads of the Soviet Complex would like to see the governments of all the Western powers changed—but only if they are changed in the direction of communism. They are hardly interested in seeing changes made which would strengthen the West in the, ah, Battle For Men's Minds."

Larry snorted his disgust. "What sort of change in government would strengthen the United States in—"

The German interrupted smoothly, "Evidently, that's what Frol seems to be here for, Larry. To find out more about this movement and—"

"This *what?*" Larry blurted.

"The term seems to be *movement.*"

Larry Woolford held a long silence before saying, "And Frol is actually here in this country to buck this . . . this movement."

"Not necessarily," the other said impatiently. "He is here to find out more about it. Evidently Peking and Moscow have heard just enough to make them nervous."

Larry said, "You have anything more, Hans?"

"I'm afraid that's about it."

"All right," Larry said. He added absently, "Thanks, Hans."

"Thank me some day with deeds, not with words," the German chuckled.

Larry Woolford looked at his watch and grimaced. He was either going to get going now or forget about doing any fishing in Florida this afternoon.

Grudgingly, he dialed the phone company's Personal Service and said to the impossibly cheerful blonde who answered, "Where can I find Professor Peter Voss who teaches over at the University in Baltimore? I don't want to talk with him, just want to know where he'll be an hour from now."

While waiting for his information, he dressed, deciding inwardly that he hated his job, the department in which he was employed, the Boss and Greater Washington. On top of that, he hated himself. He'd already been taken off this assignment, why couldn't he leave it lay?

The blonde rang him back. Professor Peter Voss was at home. He had no classes today. She gave him the address.

Larry Woolford raised his car from his auto-bungalow in the Brandywine suburb and headed northwest at a high level for the old Baltimore section of the city.

The Professor's house, he noted, was of an earlier day and located on the opposite side of Paterson Park from Elwood avenue, the street on which Susan Self and her father had resided. That didn't necessarily hold significance, the park was a large one and the Professor's section a well-to-

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do neighborhood, while Self's was just short of a slum these days.

He brought his car down to street level, and parked before the scholar's three-story, brick house. Baltimore-like, it was identical to every other house in the block; Larry wondered vaguely how anybody ever managed to find his own place when it was very dark out.

There was an old-fashioned bell at the side of the entrance and Larry Woolford pushed it. There was no identification screen in the door, evidently the inhabitants had to open up to see who was calling, a tiring chore if you were on the far side of the house and the caller nothing more than a salesman.

It was obviously the Professor himself who answered.

He was in shirtsleeves, tieless and with age-old slippers on his stockingless feet. He evidently hadn't bothered to shave this morning and he held a dog-earred pamphlet in his right hand, his forefinger tucked in it to mark his place. He wore thick-lensed, gold-rimmed glasses through which he blinked at Larry Woolford questioningly, without speaking. Professor Peter Voss was a man in his mid fifties, and, on the face of it, couldn't care less right now about his physical appearance.

A weird, Larry decided immediately. He wondered at the University, one of the nation's best, keeping on such a figure.

"Professor Voss?" he said. "Lawrence Woolford." He brought forth his identification.

The Professor blinked down at it. "I see," he said. "Won't you come in?"

The house was old, all right. From the outside, quite acceptable, but the interior boasted few of the latest amenities which made all the difference in modern existence. Larry was taken back by the fact that the phone which he spotted in the *entrada* hadn't even a screen—an old model for speaking only.

The Professor noticed his glance and said dryly, "The advantages of combining television and telephone have never seemed valid to me. In my own home, I feel free to relax, as you can observe. Had I a screen on my phone, it would be necessary for me to maintain the same appearance as I must on the streets or before my classes."

Larry cleared his throat without saying anything. This was a weird one, all right.

The living room was comfortable in a blatantly primitive way. Three or four paintings on the walls which were probably originals, Larry decided, and should have been in museums. Not an abstract among them. A Grant Wood, a Marin, and that over there could only be a Grandma Moses. The sort of things you might keep in your private den, but hardly to be seen as culture symbols.

The chairs were large, of leather, and comfortable and probably belonged to the period before the Second War. Peter Voss, evidently, was little short of an exhibitionist.

The Professor took up a battered

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humidor. "Cigar?" he said. "Manila. Hard to get these days."

A cigar? Good grief, the man would be offering him a chaw of tobacco next.

"Thanks, no," Larry said. "I smoke a pipe."

"I see," the Professor said, lighting his stogie. "Do you really like a pipe? Personally, I've always thought the cigar by far the most satisfactory method of taking tobacco."

What can you say to a question like that? Larry ignored it, as though it was rhetorical. Actually, he smoked cigarettes in the privacy of his den. A habit which was on the proletarian side and not consistent with his status level.

He said, to get things under way, "Professor Voss, what is an intuitive scientist?"

The Professor exhaled blue smoke, shook out the old-time kitchen match with which he'd lit it, and tossed the matchstick into an ashtray. "Intuitive scientist?"

"You once called Ernest Self a great intuitive scientist."

"Oh, Self. Yes, indeed. What is he doing these days?"

Larry said wryly, "That's what I came to ask you about."

The Professor was puzzled. "I'm afraid you came to the wrong place, Mr. Woolford. I haven't seen Ernest for quite a time. Why?"

"Some of his researches seem to have taken him rather far afield. Actually, I know practically nothing about him. I wonder if you could fill me in a bit."

Peter Voss looked at the ash on the end of his cigar. "I really don't know the man that well. He lives across the park. Why don't—"

"He's disappeared," Larry said.

The Professor blinked. "I see," he said. "And in view of the fact that you are a security officer, I assume under strange circumstances." Larry Woolford said nothing and the Professor sank back into his chair and pursed his lips. "I can't really tell you much. I became interested in Self two or three years ago when gathering material for a paper on the inadequate manner in which our country rewards its inventors."

Larry said, "I've heard about his suit against the government."

The Professor became more animated. "Ha!" he snorted. "One example among many. Self is not alone. Our culture is such that the genius is smothered. The great contributors to our society are ignored, or worse."

Larry Woolford was feeling his way. Now he said mildly, "I was under the impression that American free enterprise gave the individual the best opportunity to prove himself and that if he had it on the ball he'd get to the top."

"Were you really?" the Professor said snappishly. "And did you know that Edison died a comparatively poor man with an estate somewhere in the vicinity of a hundred thousand dollars? An amount that might sound like a good deal to you or me, but, when you consider his contributions, shockingly little. Did you know that Eli Whitney realized little, if

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anything, from the cotton gin? Or that McCormick didn't invent the reaper but gained it in a dubious court victory? Or take Robert Goddard, one of the best examples of modern times. He developed the basics of rocket technology—gyroscopic stabilizers, fuel pumps, self-cooling motors, landing devices. He died in 1945 leaving behind twenty-two volumes of records that proved priceless. What did he get out of his researches? Nothing. It was fifteen years later that his widow won her suit against the government for patent infringements!"

Larry held up a hand. "Really," he said. "My interest is in Ernest Self."

The Professor relaxed. "Sorry. I'm afraid I get carried away. Self, to get back to your original question, is a great intuitive scientist. Unfortunately for him, society being what it is today, he fits into few grooves. Our educational system was little more than an irritation to him and consequently he holds no degrees. Needless to say, this interfered with his gaining employment with the universities and the large corporations which dominate our country's research, not to mention governmental agencies.

"Ernest Self holds none of the status labels that count. The fact that he is a genius means nothing. He is supposedly qualified no more than to hold a janitor's position in labora-

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tories where his inferiors conduct experiments in fields where he is a dozenfold more capable than they. No one is interested in his genius, they want to know what status labels are pinned to him. Ernest has no respect for labels."

Larry Woolford figured he was picking up background and didn't force a change of subject. "Just what do you mean by intuitive scientist?"

"It's a term I have used loosely," the Professor admitted. "Possibly a scientist who makes a break-through in his field, destroying formerly held positions—in Self's case, without the math, without the accepted theories to back him. He finds something that works, possibly without knowing why or how and by using unorthodox analytical techniques. An intuitive scientist, if I may use the term, is a thorn in the side of our theoretical physicists laden down with their burden of a status label but who are themselves short of the makings of a Leonardo, a Newton, a Galileo, or even a Nicholas Christofilos."

"I'm afraid that last name escapes me," Larry said.

"Similar to Self's case and Robert Goddard's," Voss said, his voice bitter. "Although his story has a better ending. Christofilos invented the strong-focusing principle that made possible the multi-billion-volt particle accelerators currently so widely used in nuclear physics experimentation. However, he was nothing but a Greek elevator electrical system engineer and the supposed experts turned him down on the grounds that his math was faulty. It seems that he submitted the idea in straight-algebra terms instead of differential equations. He finally won through after patenting the discovery and rubbing their noses in it. Previously, none of the physics journals would publish his paper—he didn't have the right status labels to impress them."

Larry said, almost with amusement, "You seem to have quite a phobia against the status label, as you call it. However, I don't see how as complicated a world as ours could get along without it."

The Professor snorted his contempt. "Tell me," he said, "to which class do you consider yourself to belong?"

Larry Woolford shrugged. "I suppose individuals in my bracket are usually thought of as being middle-middle class."

"And you have no feeling of revolt in having such a label hung on you? Consider this system for a moment. You have lower-lower, middle-lower, and upper-lower; then you have lower-middle, middle-middle, upper-middle; then you have lower-upper, middle-upper, and finally we achieve to upper-upper class. Now tell me, when we get to that rarified category, who do we find? Do we find an Einstein, a Schweitzer, a Picasso; outstanding scientists, humanitarians, the great writers, artists and musicians of our day? Certainly not. We find ultra-wealthy playboys and girls, a former king and his duchess who eke out their income by accepting fees to at-

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tend parties, the international bum set, bearers of meaningless feudalistic titles. These are your upper-upper class!"

Larry laughed.

The Professor snapped, "You think it funny? Let me give you another example of our status label culture. I have a friend whom I have known since childhood. I would estimate that Charles has an I.Q. of approximately 90, certainly no more. His family, however, took such necessary steps as were needed to get Charles through public school. No great matter these days, you'll admit, although on occasion he needed a bit of tutoring. On graduation, they recognized that the really better schools might be a bit difficult for Charles so he was entered in a university with a good name but without—shall we say?—the highest of scholastic ratings. Charles plodded along, had some more tutoring, probably had his thesis ghosted, and eventually graduated. At that point an uncle died and left Charles an indefinite amount to be used in furthering his education to any extent he wished to go. Charles, motivated probably by the desire to avoid obtaining a job and competing with his fellow man, managed to wrangle himself into a medical school and eventually even graduated. Since funds were still available, he continued his studies abroad, largely in Vienna."

The Professor wound it up. "Eventually, he ran out of schools, or his uncle's estate ran out—I don't know which came first. At any rate, my friend Charles, laden down with status labels, is today practicing as a psychiatrist in this fair city of ours."

Larry stared at him blankly.

The Professor said snappishly, "So any time you feel you need to have your brains unscrambled, you can go to his office and expend twenty-five dollars an hour or so. His reputation is of the highest." The Professor grunted his contempt. "He doesn't know the difference between an aspirin tablet and a Rorschach test."

Larry Woolford stirred in his chair. "We seem to have gotten far off the subject. What has this got to do with Self?"

The Professor seemed angry. "I repeat, I'm afraid I get carried away on this subject. I'm in revolt against a culture based on the status label. It eliminates the need to judge a man on his merits. To judge a person by the clothes he wears, the amount of money he possesses, the car he drives, the neighborhood in which he lives, the society he keeps, or even his ancestry, is out of the question in a vital, growing society. You wind up with nonentities as the leaders of your nation. In these days, we can't afford it."

He smiled suddenly, rather elfishly, at the security agent. "But admittedly, this deals with Self only as one of many victims of a culture based on status labels. Just what is it you wanted to know about Ernest?"

"When you knew him, evidently he was working on rocket fuels. Have you any idea whether he later developed a method of producing perfect counterfeit?"

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The Professor said, "Ernest Self? Surely you are jesting."

Larry said unhappily, "Then here's another question. Have you ever hear him mention belonging to a movement, or, I think, he might word it *The Movement.*"

"Movement?" the Professor said emptily.

"Evidently a revolutionary group interested in the overthrow of the government."

"Good heavens," the Professor said. "Just a moment, Mr. Woolford. You interrupted me just as I was having my second cup of coffee. Do you mind if I—"

"Certainly not," Woolford shook his head.

"I simply can't get along until after my third cup," the Professor said. "You just wait a moment and I'll bring the pot in here."

He left Larry to sit in the combined study and living room while he shuffled off in his slippers to the kitchen. Larry Woolford decided that in his school days he'd had some far out professors himself, but it would really be something to study under this one. Not that the old boy didn't have some points, of course. Almost all nonconformists base their particutar peeves on some actuality, but in this case, what was the percentage? How could you buck the system? Particularly when, largely, it worked.

The Professor returned with an old-fashioned coffeepot, two cups, and sugar and cream on a tray. He put them on a side table and said to Larry, "You'll join me? How do you take it?"

Larry still had the slightest of hang-overs from his solitary drinking of the night before. "Thanks. Make it black," he said.

The Professor poured, served, then did up a cup for himself. He sat back in his chair and said, "Now, where were we? Something about a revolutionary group. What has that to do with counterfeiting?"

Larry sipped the strong coffee. "It seems there might be a connection."

The Professor shook his head. "It's hard to imagine Ernest Self being connected with a criminal pursuit."

Larry said carefully, "Susan seemed to be of the opinion that you knew about a large amount of counterfeit currency that this Movement had on hand and that you were in favor of spending it upon chorus girls."

The Professor gaped at him.

Larry chuckled uncomfortably.

Professor Voss said finally, his voice very even, "My dear sir, I am afraid that I evidently can be of little assistance to you."

"Admittedly, it doesn't seem to make much sense."

"Susan—you mean that little sixteen year old?—said *I* was in favor of spending counterfeit money on chorus girls?"

Larry said unhappily, "She used the term *the Professor.*"

"And why did you assume that the title must necessarily allude to me? Even if any of the rest of the fantastic story was true."

Larry said, "In my profession, Pro-

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fessor Voss, we track down every possible clue. Thus far, you are the only professor of whom we know who was connected with Ernest Self."

Voss said stiffly, "I can only say, sir, that in my estimation Mr. Self is a man of the highest integrity. And, in addition, that I have never spent a penny on a chorus girl in my life and have no intention of beginning, counterfeit or otherwise."

Larry Woolford decided that he wasn't doing too well and that he'd need more ammunition if he was going to return to this particular attack. He was surprised that the old boy hadn't already ordered him from the house.

He finished the coffee preparatory to coming to his feet. "Then you think it's out of the question, Ernest Self belonging to a revolutionary organization?"

The Professor protested. "I didn't say that at all. Mr. Self is a man of ideals. I can well see him belonging to such an organization."

Larry Woolford decided he'd better hang on for at least a few more words. "You don't seem to think, yourself, that a subversive organization is undesirable in this country."

The Professor's voice was reasonable. "Isn't that according to what it means to subvert?"

"You know what I mean," Woolford said in irritation. "I don't usually think of revolutionists, even when they call themselves simply members of a *movement,* as exactly idealists."

"Then you're wrong," the Professor said definitely, pouring himself another cup of coffee. "History bears out that almost invariably revolutionists are men of idealism. The fact that they might be either right or wrong in their revolutionary program is beside the point."

Larry Woolford began to say, "Are you sure that you aren't interested in this *move*—"

But it was then that the knockout drops hit him.

He came out of the fog feeling nausea and with his head splitting. He groaned and opened one eye experimentally.

Steve Hackett, far away, said, "He's snapping out of it."

Larry groaned again, opened the other eye and attempted to focus. "What happened?" he muttered.

"Now that's an original question," Steve said.

Larry Woolford struggled up into a sitting position. He'd been stretched out on a couch in the Professor's combined living room and study.

Steve Hackett, his hands on his hips, was looking down at him sarcastically. There were two or three others, one of whom Larry vaguely remembered as being a Secret Service colleague of Steve's, going about and in and out of the room.

Larry said, his fingers pressing into his forehead, "My head's killing me. Damn it, what's going on?"

Steve said sarcastically, "You've been slipped a mickey, my cloak and dagger friend, and the bird has flown."

"You mean the Professor? He's a bird all right."

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"Humor we get, yet," Hackett said, his ugly face scowling. "Listen, I thought you people had pulled out of this case."

Larry sat up and swung his two feet around to the floor. "So did I," he moaned, "but there were two or three things that bothered me and I thought I'd tidy them up before leaving."

"You tidied them up all right," Steve grumbled. "This Professor Voss was practically the only lead I've been able to discover. An old friend of Self's. And you allowed him to get away before we even got here."

One of Hackett's men came up and said, "Not a sign of him, Steve. He evidently burned a few papers, packed a suitcase, and took off. His things look suspiciously as though he was ready to go into hiding at a moment's notice."

Steve growled to him, "Give the place the works. He's probably left some clues around that'll give us a line."

The other went off and Steve Hackett sat down in one of the leather chairs and glowered at Larry Woolford. "Listen," he said, "what did you people want with Susan Self?"

Larry shook his head for clarity and looked at him. "Susan? What are you talking about? You don't have any aspirin, do you?"

"No. What'd you mean, what am I talking about? You called Betsy Hughes and then sent a couple of men over to pick the Self kid up."

"Who's Betsy Hughes?"

Steve shook his head. "I don't know what kind of knockout drops the old boy gave you, but they sure worked. Betsy's the operative we had minding Susan Self over in the Greater Washington Hilton. About an hour ago you got her on the phone, said your department wanted to question Susan, and that you were sending two men over to pick her up. The two men turned up with an order from you, and took the girl."

Larry stared at him. Finally he said, "What time is it?"

"About two o'clock."

Larry said, "I came into this house in the morning, talked to the Professor for about half an hour and then was silly enough to let him give me some loaded coffee. He was such a weird old buzzard that it never occurred to me he might be dangerous. At any rate, I've been unconscious for several hours. I *couldn't've* called this Betsy Hughes operative of yours."

It was Steve Hackett's turn to stare.

"You mean your department doesn't have Susan Self?"

"Not so far as I know. The Boss told me yesterday that we were pulling out, that it was all in your hands. What would we want with Susan?"

"Oh, great," Steve snarled. "There goes our last contact. Ernest Self, Professor Voss, and now Susan Self; they've all disappeared."

"Look," Larry said unhappily, "let's get me some aspirin and then let's go and see my chief. I have a sneaking suspicion our department is back on this case."

Steve snorted sarcastically. "If you can foul things up this well when

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you're off the case, God only knows what you'll accomplish using your facilities on an all-out basis."

The Boss said slowly, "Whoever we are working against evidently isn't short of resources. Abducting that young lady was no simple matter." The career diplomat worked his lips in and out, in all but a pout.

Larry Woolford, who'd taken time out to go home, shower, change clothes and medicate himself out of his dope induced hangover, sat across the desk from him, flanked by Steve Hackett.

The Boss said sourly, "It would seem that I was in error. That our young Susan Self was not spouting fantasy. There evidently actually is an underground movement interested in changing our institutions." He stirred in his chair and his scowl went deeper. "And evidently working on a basis never conceived of by subversive organizations of the past. The fact that they have successfully remained secret even to this department is the prime indication that they are attempting to make their revolutionary changes in a unique manner."

Larry said, "The trouble is, we don't even know what it is they want."

"However," his superior said slowly, "we are beginning to get inklings."

Steve Hackett said, "What inklings, sir? This sort of thing might be routine for you people, but my field is counterfeit. I, frankly, don't know what it's all about."

The Boss looked at him. "We have a clue or two, Mr. Hackett. For one thing, we know that this Movement of ours has no affiliations with the Soviet Complex, nor, so far as we know, any foreign element whatsoever. If we take Miss Self's word, it is strictly an American phenomenon. From what little we know of Ernest Self and Peter Voss they might be in revolt against some of our current institutions but there is no reason to believe them, ah, *un-American* in the usually accepted sense of the word."

The two younger men looked at him as though he was joking.

He shook his heavy head negatively. "Actually, what do we have on this so-called Movement thus far? Aside from treating Lawrence, here, to some knockout drops—and let us remember that Lawrence was present in the Professor's home without a warrant—all we have is the suspicion that they have manufactured a quantity of counterfeit."

"A *quantity* is right," Steve Hackett blurted. "If we're to accept what that Self kid told us, they have a few billion dollars worth of perfect bills on hand."

"A strange amount for counterfeiters to produce," The Boss said uncomfortably. "That is what puzzles me. Any revolutionary movement needs funds. Remember Stalin as a young man? He used to be in charge of the Bolshevik gang which robbed banks to raise funds for their underground newspapers. But a billion dollars? What in the world can they expect to need that amount for?"

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Larry said, "Sir, you keep talking as though these characters were a bunch of idealistic do-gooders bleeding for the sake of the country. Actually, from what we know, they're nothing but a bunch of revolutionists."

The Boss was shaking his head. "You're not thinking clearly, Lawrence. Revolution, *per se,* is not illegal in the United States. Our Constitution was probably the first document of its kind which allowed for its own amendment. The men who wrote it provided for changing it either slightly or *in toto.* Whenever the majority of the American people decide completely to abandon the Constitution and govern themselves by new laws, they have the right to do it."

"Then what's the whole purpose of this department, sir?" Larry argued. "Why've we been formed to combat foreign and domestic subversion?"

His chief sighed. "You shouldn't have to ask that, Lawrence. The present government cannot oppose the will of the majority if it votes, by constitutional methods, to make any changes it wishes. But we can, and do, unmask the activities of anyone trying to overthrow the government by force and violence. Any culture protects itself against that."

"What are we getting at, sir?" Steve Hackett said, impatiently.

The Boss shrugged. "I'm trying to point out that so far as *my* department is concerned, thus far we have little against this Movement. Secret Service may have, what with this wholesale counterfeiting, even though thus far they seem to have made no attempt to pass the currency they have allegedly manufactured. We wouldn't even know of it, weren't it for our young Susan pilfering an amount."

Larry said, desperately, "Sir, you just pointed out a few minutes ago that this Movement is a secret organization trying to make changes in some unique manner. In short, they don't figure on using the ballot to put over their revolution. That makes them as illegal as the Commies, doesn't it?"

The Boss said, "That's the difficulty; we don't know what they want. From your conversations with Susan Self and especially Professor Voss, evidently they think the country needs some basic changes. What these changes are, and how they expect to accomplish them, we don't know. Unless a foreign government is involved, or unless they plan to alter our institutions by violence, this department just doesn't have much jurisdiction."

Steve Hackett snorted, "Secret Service does! If those bales of money the Self kid told us about are ever put into circulation, there'll be hell to pay."

The Boss sighed. "Well," he said, "Lawrence can continue on the assignment. If it develops in such manner as to indicate that this department is justified in further investigation, we'll put more men on it. Meanwhile, it is obviously more a Secret Service matter. I am sorry to intrude upon your vacation again, Lawrence."

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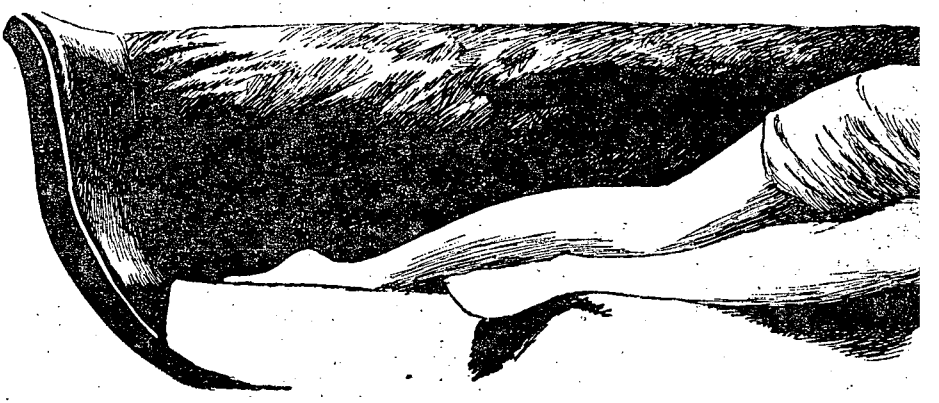
On awakening in the morning, Larry Woolford stared glumly at the ceiling for long moments before dragging himself from bed. This was, he decided, the strangest assignment he'd ever been on. In his day he'd trekked through South America, Common Europe, a dozen African states, and even areas of Southern Asia, combatting Commie pressures here, fellow-traveler organizations there, disrupting plots hatched in the Soviet Complex in the other place. On his home grounds in the United States he'd covered everything from out and out Soviet espionage, to exposing Communist activities of complexions from the faintest of pinks to the rosiest Trotskyite red. But, he decided, he'd never expected to wind up after a bunch of weirds whose sole actionable activity to date seemed to be the counterfeiting of a fantastic amount of legal tender which thus far they were making no attempt to pass.

He got out of bed and went through the rituals of showering, shaving and clothing, of coffee, sausages and eggs, toast and more coffee.

What amazed Larry Woolford was the shrug-it-off manner in which the Boss seemed to accept this underground Movement and its admitted subversive goals—whatever they were. Carry the Boss' reasoning to its ultimate and subversion was perfectly all right, just as it didn't involve force and violence. If he was in his chief's position, he would have thrown the full resources of the department into tracking down these crackpots. As it was, he, Larry Woolford was the only operative on the job.

He needed a new angle on which to work. Steve Hackett was undoubtedly handling the tracing down of the counterfeit with all the resources of the Secret Service. Possibly there was some way of detecting the source of the paper they'd used.

He finished his final cup of coffee in the living room and took up the



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pipe he was currently breaking in. He loaded it automatically from a humidor and lit it with his pocket lighter. Three drags, and he tossed it back to the table, fumbled in a drawer and located a pack of cigarettes. Possibly his status group was currently smoking British briars in public, but, let's face it, he hated the confounded things.

He sat down before the phone and dialed the offices of the *Sun-Post* and eventually got Sam Sokolski who this time beat him to the punch.

Sam said, "You shouldn't drink alone. Listen, Larry, why don't you get in touch with Alcoholics Anonymous. It's a great outfit."

"You ought to know," Larry growled. "Look, Sam, as science columnist for that rag you work for you probably come in touch with a lot of eggheads."

"Laddy-buck, you have said it," Sam said.

"Fine. Now look, what I want to know is have you ever heard—even the slightest of rumors—about an organization called the Movement?"

"What'd'ya mean, slightest of rumors? Half the weirds I run into are interested in the outfit. Get two or three intellectuals, scientists, technicians, or what have you, together and they start knocking themselves out on the pros and cons of the Movement."

Larry Woolford stared at him. "Are you kidding, Sam?"

The other was mystified. "Why should I kid you? As a matter of fact,

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I was thinking of doing a column one of these days on Voss and this Movement of his."

"*Voss* and this movement of his!"

"Sure," Sam said, "he's the top leader."

"Oh, great," Larry growled. "Look, Sam, eventually there is probably a story in this for you. Right now, though, we're trying to keep the lid on it. Could you brief me a little on this Movement? What are they trying to put over?"

"I seem to spend half my time briefing you in information any semi-moron ought to be up on," Sam said nastily. "However, *briefly*, they're in revolt against social-label judgments. They think it's fouling up the country and that eventually it'll result in the Russkies passing us in all the fields that really count."

"I keep running into this term," Larry complained. "What do you mean, social-label judgments, and how can they possibly louse up the country?"

Sam said, "I was present a month or so ago when Voss gave an informal lecture to a group of twenty or so. Here's one of the examples he used.

"Everybody today wants to be rated on a (1) personal, or, (2) social-label basis, depending on which basis is to his greatest advantage. The Negro who is a no-good, lazy, obnoxious person demands to be accepted because Negroes should not be discriminated against. The highly competent, hard working, honest and productive Negro wants to be accepted because he is hard-working, honest and productive—and should be so accepted.

"See what I mean? This social-label system is intended to relieve the individual of the necessity of judging, and the consequences of being judged. If you have poor judgment, and are forced to rely on your own judgment, you're almost sure to go under. So persons of poor judgment support our social-label system. If you're a louse, and are correctly judged as being a louse, you'd prefer that the social dictum 'Human beings are never lice' should apply."

Larry said, "What in the devil's this got to do with the race between this country and the Russkies?"

Sam said patiently, "Voss and the Movement he leads, contend that a social-label system winds up with incompetents running the country in all fields. Often incompetent scientists are in charge of our research; incompetent doctors, in charge of our health; incompetent politicians run our government; incompetent teachers, laden with social-labels, teach our youth. Our young people are going to college to secure a degree, not an education. It's the label that counts, not the reality.

"Voss contends that it's getting progressively worse. That we're sinking into an equivalent of a ritual-taboo, tribal social-like situation. This is the system the low-level human being wants, yearns for and seeks. A situation in which no one's judgment is of any use. Then *his* lack of judgment is no handicap.

"According to members of the Movement, today the tribesman type

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is seeking to reduce civilization back to ritual-taboo tribalism wherein no one man's judgment is of any value. The union wants advancement based on seniority, not on ability and judgment. The persons with whom you associate socially judge you by the amount of money you possess, the family from which you come, the degrees you hold, by social-labels—not by your proven abilities. Down with judgment! is the cry."

"It sounds awfully weird to me," Larry grumbled in deprecation.

Sam shrugged. "There's a lot of sense in it. What the Movement wants is to develop a socio-economic system in which judgment produces a maximum advantage."

Larry said, "What gets me is that you talk as though half the country was all caught up in debating this Movement. But I haven't even heard of it, neither has my department chief, nor any of my colleagues, so far as I know. Why isn't anything about it in the papers or on the TriD?"

Sam said mildly, "As a matter of fact, I took in Mort Lenny's show the other night and he made some cracks about it. But it's not the sort of thing that's even meant to become popular with the man in the street. To put it bluntly, Voss and his people aren't particularly keen about the present conception of the democratic ideal. According to him, true democracy can only be exercised by peers and society today isn't composed of peers. If you have one hundred people, twenty of them competent, intelligent persons, eighty of them untrained, incompetent and less than intelligent, then it's ridiculous to have the eighty dictate to the twenty."

Larry looked accusingly at his long-time friend. "You know, Sam, you sound as though you approve of all this."

Sam said patiently, "I listen to it all, Larry my boy. I think Voss makes a lot of sense. There's only one drawback."

"And that is?"

"How's he going to put it over? This social-label system the Movement complains about was bad enough ten years ago. But look how much worse it is today. It's a progressive thing. And, remember, it's to the benefit of the incompetent. Since the incompetent predominates, you're going to have a hard time starting up a system based on judgment and ability."

Larry thought about it for a moment.

Sam said, "Look, I'm working, Larry. Was there anything else?"

Larry said, "You wouldn't know where I could get hold of Voss, would you?"

"At his home, I imagine, or at the University."

"He's disappeared. We're looking for him."

Sam laughed. "Gone underground, eh? The old boy is getting romantic."

"Does he have any particular friends who might be putting him up?"

Sam thought about it. "There's Frank Nostrand. You know, that rock-

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et expert who was fired when he got in the big hassle with Senator McCord."

When Sam Sokolski had flicked off, Larry stared at the vacant phone screen for a long moment, assimilating what the other had told him. He was astonished that an organization such as the Movement could have spread to the extent it evidently had through the country's intellectual circles, through the scientifically and technically trained, without his department being keenly aware of it.

One result, he decided glumly, of labeling everything contrary to the *status quo* as *weird* and dismissing it with contempt. Admittedly, that would have been his own reaction only a week ago.

Suppose that he'd been at a cocktail party, and had drifted up to a group who were arguing about social-label judgments and the need to develop a *movement* to change society's use of them. The discussion would have gone in one ear, out the other, and he would have muttered inwardly, "Weirds," and have drifted on to get himself another vodka martini.

Larry snorted and dialed the Department of Records. He'd never heard of Frank Nostrand before, so he got Information.

The bright young thing who answered seemed to have a harried expression untypical of Records employees. Larry said to her, "I'd like the brief on a Mr. Frank Nostrand who is evidently an expert on rockets. The only other thing I know about him is that he recently got in the news as the result of a controversy with Senator McCord."

"Just a moment, sir," the bright young thing said.

She touched buttons and reached into a delivery chute. When her eyes came up to meet his again, they were more than ever harried. They were absolutely confused.

"Mr. Franklin Howard Nostrand," she said, "currently employed by Madison Air as a rocket research technician."

"That must be him," Larry said. "I'm in a hurry, Miss. What's his background?"

Her eyes rounded. "It says . . . it says he's an Archbishop of the Anglican Church."

Larry Woolford looked at her.

She looked back, pleadingly.

Larry scowled and said, "His university degrees, please."

Her eyes darted to the report and she swallowed. "A bachelor in Home Economics, sir."

"Look here, Miss, how could a Home Economics degree result in his becoming either an Archbishop or a rocket technician?"

"I'm sorry, sir. That's what it says."

Larry was fuming but there was no point in taking it out on this junior employee of the Department of Records. He snapped, "Just give me his address, please."

She said agonizingly, "Sir, it says, Lhasa, Tibet."

A red light flicked at the side of his phone and he said to her, "I'll call you back. I'm getting a priority call."

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He flicked her off, and flicked the incoming call in. It was LaVerne Polk. She seemed to be on the harried side, too.

"Larry," she said, "you better get over here right away."

"What's up, LaVerne?"

"This Movement," she said, "it seems to have started moving! The Boss says to get over here soonest."

The top of his car was retracted. Larry Woolford slammed down the walk of his auto-bungalow and vaulted over the side and into the seat. He banged the start button, dropped the lift lever, depressed the thrust peddle and took off at maximum acceleration.

He took the police level for maximum speed and was in downtown Greater Washington in flat minutes.

So the Movement had started moving. That could mean almost anything. It was just enough to keep him stewing until he got to the Boss and found out what was going on.

He turned his car over to a parker and made his way to the entrance utilized by the second-grade departmental officials. In another year, or at most two, he told himself all over again, he'd be using that other door. He had an intuitive feeling that if he licked this current assignment it'd be the opening wedge he needed and he'd wind up in a status bracket unique for his age.

LaVerne looked up when he hurried into her anteroom. She evidently had two or three calls going on at once, taking orders from one phone, giving them in another. Something was obviously erupting. She didn't speak to him, merely nodded her head at the inner office.

In the Boss' office were six or eight others besides Larry's superior. Their expressions and attitudes ran from bewilderment to shock. They weren't the men you'd expect to have such reactions. At least not those that Larry Woolford recognized. Three of them, Ben Ruthenberg, Bill Fraina and Dave Moskowitz were F.B.I. men with whom Larry had worked on occasion. One of the others he recognized as being a supervisor with the C.I.A. Walt Foster, Larry's rival in the Boss' affections was also present.

The Boss growled at him, "Where in the heavens have you been, Lawrence?"

"Following out leads on this so-called Movement, sir," Larry told him. "What's going on?"

Ruthenberg, the Department of Justice man, grunted sour amusement. "So-called Movement, isn't exactly the correct phrase. It's a Movement, all right."

The Boss said, "Please dial Records and get your dossier, Lawrence. That'll be the quickest way to bring you up on developments."

Mystified, but already with a growing premonition, Larry dialed Records. Knowing his own classification code, he had no need of Information this time. He got the hundred-word brief and stared at it as it filled the screen. The only items really correct were his name and present occupation. Otherwise his education was

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listed as grammar school only. His military career had him ending the war as a General of the Armies, and his criminal career record included four years on Alcatraz for molesting small children.

Blankly, he faded the brief and dialed his full dossier. It failed to duplicate the brief, but that was no advantage. This time he had an M.D. degree from Johns Hopkins, but his military career listed him as a dishonorable discharge from the navy where he'd served in the steward department. His criminal record was happily nil, but his religion was listed as Holy Roller. Political affiliations had him down as a member of the Dixiecrats.

The others were looking at him, most of them blankly, although there were grins on the faces of Moskowitz and the C.I.A. man.

Moskowitz said, "With a name like mine, yet, they have me a Bishop of the Orthodox Greek Catholic Church."

Larry said, "What's it all about?"

Ruthenberg said unhappily, "It started early this morning. We don't know exactly when as yet." Which didn't seem to answer the question.

Larry said, "I don't get it. Obviously, the Records department is fouled up in some manner. How, and why?"

"How, we know," the Boss rumbled disgustedly. "Why is another matter. You've spent more time than anyone else on this assignment, Lawrence. Perhaps you can tell us." He grabbed up a pipe from his desk, tried to light it noisily, noticed finally that it held no tobacco and threw it to the desk again. "Evidently, a large group of these Movement individuals either already worked in Records or wriggled themselves into key positions in the technical end of the department. Now they've sabotaged the files."

"We've caught most of them already," one of the F.B.I. men growled, "but damn little good that does us at this point."

The C.I.A. supervisor made a gesture indicating that he gave it all up. "Not only here but in Chicago and San Francisco as well. All at once. Evidently perfectly rehearsed. Personnel records from coast to coast are bollixed. Why?"

Larry said slowly, "I think I know that now. Yesterday, I wouldn't have but I've been picking up odds and ends."

They all looked at him.

Larry sat down and ran a hand back through his hair. "The general idea is to change the country's reliance on social-label judgments."

"On *what*," the Boss barked.

"On one person judging another according to social-labels. Voss and the others—"

"Who did you say?" Ruthenberg snapped.

"Voss. Professor Peter Voss from the University over in Baltimore section. He's the ring leader."

Ruthenberg snapped to Fraina, "Get on the phone and send out a pick-up order for him."

Fraina was on his feet. "What charge, Ben?"

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Ben Ruthenberg snorted. "Rape, or something. Get moving, we'll figure out a charge later. The guy's a fruitcake."

Larry said wearily, "He's evidently gone into hiding. I've been trying to locate him. He managed to slip me some knockout drops and got away yesterday."

The Boss looked at him in disgust.

Ruthenberg said evenly, "We've had men go into hiding before. Get going, Fraina."

Fraina left the office and the others looked back to Larry.

The Boss said, "About this social-label nonsense—"

Larry said, "They think the country is going to pot because of it. People hold high office or places of responsibility not because of superior intelligence, or even acquired skill, but because of the social-labels they've accumulated, and these can be based on something as flimsy—from the Movement's viewpoint—as who your grandparents were, what school you attended, how much seniority you have on the job, what part of town you live in, or what tailor cuts your clothes."

Their expressions ran from scowls and frowns to complete puzzlement.

Walt Foster grumbled, "What's all this got to do with sabotaging the country's Records tapes?"

Larry shrugged. "I don't have the complete picture, but one thing is sure. It's going to be harder for a while to base your opinions on a quick hundred-word brief on a man. Yesterday, an employer, considering hiring somebody, could dial the man's dossier, check it, and form his opinions by the status labels the would-be employee could produce. Today, he's damn well going to have to exercise his own judgment."

LaVerne's face lit up the screen on the Boss' desk and she said, "Those two members of the Movement who were picked up in Alexandria are here, sir."

"Send them in," the Boss rumbled. He looked at Larry. "The F.B.I. managed to arrest almost everyone directly involved in the sabotage."

The two prisoners seemed more amused than otherwise. They were young men, in their early thirties—well dressed and obviously intelligent. The Boss had them seated side by side and glared at them for a long moment before speaking. Larry and the others took chairs in various parts of the room and added their own stares to the barrage.

The Boss said, "Your situation is an unhappy one, gentlemen."

One of the two shrugged.

The Boss said, "You can, ah, hedge your bets, by co-operating with us. It might make the difference between a year or two in prison—and life."

One of them grinned and then yawned. "I doubt it," he said.

The Boss tried a slightly different tack. "You have no reason to maintain a feeling of obligation to Voss and the others. You have obviously been abandoned. Had they any feeling for you there would have been more efficacious arrangements for your escape."

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The more articulate of the two shrugged again. "We were expendable," he said. "However, it won't be long before we're free again."

"You think so?" Ruthenberg grunted.

The revolutionist looked at him. "Yes, I do," he said. "Six months from now and we'll be heroes since by that time the Movement will have been a success."

The Boss snorted. "Just because you deranged the Records? Why that's but temporary."

"Not so temporary as you think," the technician replied. "This country has allowed itself to get deeply immeshed in punch-card and tape records. Oh, it made sense enough. With the population we have, and the endless files that result from our ultra-complicated society, it was simply a matter finally of developing a standardized system of records for the nation as a whole. Now, for all practical purposes, *all* of our records these days are kept with the Department of Records, confidential as well as public records. Why should a university, for instance, keep literally tons of files, with all the expense and space and time involved, when it can merely file the same records with the governmental department and have them safe and easily available at any time? Now, the Movement has completely and irrevocably destroyed almost all files that deal with the social-labels to which we object. An excellent first step, in forcing our country back into judgment based on ability and intelligence."

"First step!" Larry blurted.

The two prisoners looked at him. "That's right," the quieter of the two said. "This is just the first step."

"Don't kid yourselves," Ben Ruthenberg snapped at them. "It's also the last!"

The two members of the Movement grinned at him.

When the others had gone, the Boss looked at Larry Woolford. He said sourly, "When this department was being formed, I doubt anyone had in mind this particular type of subversion, Lawrence."

Larry grunted. "Give me a good old-fashioned Commie, any time. Look, sir, what are the Department of Justice boys going to do with those prisoners?"

"Hold them on any of various charges. We've conflicted with the F.B.I. in the past on overlapping jurisdiction, but thank heavens for them now. Their manpower is needed."

Larry leaned forward. "Sir, we ought to take all members of the Movement we're already arrested, feed them a dose of Scop-Serum, and pressure them to open up on the organization's operations.

His superior looked a him, waiting for him to continue.

Larry said urgently, "Those two we just had in here thought the whole thing was a big joke. The first step, they called it. Sir, there's something considerably bigger than this cooking. Uncle Sam might pride himself on the personal liberties guaranteed

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by this country, but unless we break this organization, and do it fast, there's going to be trouble that will make this fouling of the records look like the minor matter those two jokers seemed to think it."

The Boss thought about that. He said slowly, "Lawrence, the Supreme Court ruled against the use of Scop-Serum. Not that it is over efficient, anyway. Largely, these so-called truth serums don't accomplish much more than to lower resistance, slacken natural inhibitions, weaken the will."

"Sure," Larry said. "But give a man a good dose of Scop-Serum and he'd betray his own mother. Not because he's helpless to tell a lie, but because under the influence of the drug he figures it just isn't important enough to bother about. Sir, Supreme Court or not, I think those two ought to be given Scop-Serum along with all other Movement members we've picked up."

The Boss was shaking his head. "Lawrence, these men are not wide-eyed radicals picked up in a street demonstration. They're highly respected members of our society. They're educators, scientists, engineers, technicians. Anything done to them is going to make headlines. Those that were actually involved in the sabotage will have criminal charges brought against them, but they're going to get a considerable amount of publicity, and we're going to be in no position to alienate any of their constitutional rights."

Larry stood up, approached his chief's desk and leaned over it urgently. "Sir, that's fine, but we've got to move and move fast. Something's up and we don't even know what! Take that counterfeit money. From Susan Self's description, there's actually billions of dollars worth of it."

"Oh, come now, Lawrence. The child exaggerated. Besides, that's a problem for Steven Hackett and the Secret Service, we have enough on our hands as it is. Forget about the counterfeit, Lawrence. I think I shall put you in complete control of field work on this, to co-operate in liaison with Ben Ruthenberg and the F.B.I. So far as we're concerned, the counterfeit angle belongs to Secret Service, we're working on subversion, and until the Civil Liberties Union or whoever else proves otherwise, we'll consider this Movement an organization attempting to subvert the country by illegal means."

Larry Woolford made a hard decision quickly. He was shaking his head. "Sir, I'd rather you gave the administrative end to someone else and let me continue in the field. I've got some leads—I think. If I get bogged down in interdepartmental red tape, and in paper work here at headquarters, I'll never get to the heart of this and I'm laying bets that we either crack this within days or there are going to be some awfully big changes in this country."

The Boss glared at him. "You mean you're refusing this assignment, Woolford. Confound it, don't you realize it's a promotion?"

Larry was worriedly dogged, "Sir, I'd rather stay in the field."

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"Very well," the other snapped disgustedly, "I hope you deliver some results, Woolford, otherwise I am afraid I won't feel particularly happy about your somewhat cavalier rejection of this opportunity." He flicked on the phone and snapped to LaVerne Polk, "Miss Polk, locate Walter Foster for me. He is to take over our end of this Movement matter."

LaVerne said, "Yes, sir," and her face was gone.

The Boss looked up, still scowling. "What are you waiting for, Woolford?"

"Yes, sir," Larry said. It was just coming home to him now, what he'd done. There possibly went his yearned for promotion in the department. There went his chance of an upgrading in status. And Walt Foster, of all people, in his place.

At LaVerne's desk, Larry stopped off long enough to say, "Did you ever assign that secretary to me?"

LaVerne shook her head at him. "She's come and gone, Larry. She sat around for a couple of days, after seeing you not even once, and then I gave her another assignment."

"Well, bring her back again, will you? I want her to do up briefs for me on all the information we accumulate on the Movement. It'll be coming in from all sides now. From the Press, from those members we've arrested, from our F.B.I. pals, now that they're interested, and so forth."

"I'll give you Irene Day," LaVerne said. "Where are you off to now, Larry?"

"Probably a wild goose chase," Larry growled. "Which reminds me. Do me a favor, LaVerne. Call Personal Service and find out where Frank Nostrand is. He's some kind of rocket technician at Madison Air Laboratories. I'll be in my office."

"Frank Nostrand," LaVerne said briskly. "Will do, Larry."

Back in his own cubicle, Larry stood for a moment in thought. He was increasingly aware of the uncomfortable feeling that time was running out on them. That things were coming to a dangerous head.

He stared down at the dozen or more books and pamphlets that his never seen secretary had heaped up for him. Well, he certainly didn't have time for them now.

He sat down at the desk and dialed an inter-office number.

The harassed looking face of Walter Foster faded in. On seeing Larry Woolford he growled accusingly, "My pal. You've let them dump this whole thing into my lap."

Larry grinned at him. "Better you than me, old buddy. Besides, it's a promotion. Pull this off and you'll be the Boss' right-hand man."

"That's a laugh," Foster said. "It's a madhouse. This Movement gang is as weird as they come."

"I bleed for you," Larry said. "However, here's a tip. Frol Eivazov, of the *Chrezvychainaya Komissiya* is somewhere in the country."

"Frol Eivazov!" Foster blurted. "What've the Commies got to do with this? Is this something the Boss knows about?"

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"Haven't had time to go into it with him," Larry said. "However, it seems that friend Erol is here to find out what the Movement is all about. Evidently the big boys in Peking and Moscow are nervous about any changes that might take place over here. I suggest you have him picked up, Walt."

Walt Foster said, "O.K. I'll put some people on it. Maybe the F.B.I. can help."

Larry flicked off as he saw the red priority light on his phone shining. He pushed it and LaVerne's face faded in.

She said, "This Franklin Nostrand you wanted to know about. He's evidently working at the laboratories over in Newport News, Larry. He'll be on the job until five this afternoon."

"Fine," he said. Larry grinned at her. "When are we going to have that date, LaVerne?"

She made a face. "Some day when the program involves having fun instead of parading around in the right places, driving the right model car, dressed in exactly the right clothes, and above all associating with the right people."

It was his turn to grimace. "I'm beginning to think you ought to sign up with Voss and this Movement of his. You'd be right at home with his weirds."

She stuck out her tongue at him, and flicked off.

He looked at the empty screen and chuckled. He had half a mind to get a record of their conversation, snip out

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just the section where she'd stuck out her tongue, and then play it back to her. She'd be taken aback by being confronted by her own image making faces at her.

As he made his way to the parking lot for his car, something in their conversation nagged at him, but he couldn't put his finger on it. He considered the girl, all over again. She had almost all the qualities he looked for. She was attractive, without being overly so. He disliked women out of the ordinarily beautiful, it became too much to live up to. She was sharp, but not objectionably so. Not to the point of giving you an inferiority complex.

But, Holy Smokes, she'd never do as a career man's wife. He could just see the Boss' ultraconversative better half inviting them to dinner. It would happen exactly once, never again.

He obtained his car, lifted it to one of the higher levels and headed for Newport News. It was a half-hour trip and he wasn't particularly expectant of results. The tip Sam Sokolski had given him, wasn't much to go by. Evidently, Frank Nostrand was a friend of the Professor's but that didn't necessarily mean he was connected with the movement, or that he knew Voss' whereabouts.

He might have saved himself the trip.

The bird had flown again. Not only was Frank Nostrand not at the Madison Air Laboratories, but he wasn't at home either. Larry Woolford, mindful of his departmental chief's words on the prestige these people carried, took a full hour in acquiring a search warrant before breaking into the Nostrand home.

Nostrand was supposedly a bachelor, but the auto-bungalow, similar to Larry Woolford's own, showed signs of double occupancy, and there was little indication that the guest had been a woman.

Disgruntled, Larry Woolford dialed the offices, asked for Walt Foster. It took nearly ten minutes before his colleague faded in.

"I'm up to my eyebrows, Larry. What'd you want?"

Larry gave him Frank Nostrand's address. "This guy's disappeared, Walt."

"So?"

"He was a close friend of Professor Voss. I got a warrant to search his house. It shows signs that he had a guest. Possibly it was the Professor. Do you want to get some of the boys down here to go through the place? Possibly there's some clue to where they took off for. The Professor's on the run and he's no professional at this. If we can pick *him* up, I've got a sneaking suspicion we'll have the so-called Movement licked."

Walt Foster slapped a hand to his face in anguish. "You knew where the Professor was hiding, and you tried to pick him up on your own and let him get away. Why didn't you discuss this with either the Boss or me? I'm in charge of this operation! I would have had a dozen men down there. You've fouled this up!"

Larry stared at him. Already Walt

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Foster was making sounds like an enraged superior.

He said mildly, "Sorry, Walt. I came down here on a very meager tip. I didn't really expect it to pan out."

"Well, in the future, clear with either me or the Boss before running off half cocked into something, Woolford. Yesterday, you had this whole assignment on your own. Today, it's no longer a minor matter. Our department has fifty people on it. The F.B.I. must have five times as many and that's not even counting the Secret Service's interest. It's no longer your individual baby."

"Sorry," Larry repeated midly. Then, "I don't imagine you've got hold of Frol Eivazov yet?"

The other was disgusted. "You think we're magicians? We just put out the call for him a few hours ago. He's no amateur. If he doesn't want to be picked up, he'll go to ground and we'll have our work cut out for us finding him. I can't see that it's particularly important anyway."

"Maybe you're right," Larry said. "But you never know. He might know things we don't. See you later."

Walt Foster stared at him for a moment as though about to say something, but then tightened his lips and faded off.

Larry looked at the phone screen for a moment. "Did that phony expect me to call him *sir*," he muttered.

The next two days dissolved into routine.

Frustrated, Larry Woolford spent most of his time in his office digesting developments, trying to find a new line of attack.

For want of something else, he put his new secretary, a brightly efficient girl, as style and status conscious as LaVerne Polk wasn't, to work typing up the tapes he'd had cut on Susan Self and the various phone calls he'd had with Hans Distelmayer and Sam Sokolski. From memory, he dictated to her his conversation with Professor Peter Voss.

He carefully read the typed sheets over and over again. He continually had the feeling in this case that there were loose ends dangling around. Several important points he should be able to put his finger upon.

On the morning of the third day he dialed Steve Hackett and on seeing the other's worried, pug-ugly face fade in on the phone, decided that if nothing else the Movement was undermining the United States government by dispensing ulcers to its employees.

Steve growled, "What is it Woolford? I'm as busy as a whirling dervish in a revolving door."

"This is just the glimmer of an idea, Steve. Look, remember that conversation with Susan, when she described her father taking her to headquarters?"

"So?" Steve said impatiently.

"Remember her description of headquarters?"

"Go on." Steve rapped.

"What did it remind you of?"

"What are you leading to?"

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"This is just a hunch," Larry persisted, "but the way she described the manner in which her father took her to headquarters suggests they're in the Greater Washington area."

Steve was staring at him disgustedly. How obvious could you get?

Larry hurried on. "What's the biggest business in this area, Steve?"

"Government."

"Right. And the way she described headquarters of the Movement, was rooms, after rooms, after rooms into which they'd stored the money."

"And?"

Larry said urgently, "Steve, I think in some way the Movement has taken over some governmental buildings, or storage warehouse. Possibly some older buildings no longer in use. It would be a perfect hideout. Who would expect a subversive organizations to be in governmental buildings? All they'd need would be a few officials here and there who were on their side and—"

Steve said wearily, "You couldn't have thought of this two days ago."

Larry cut himself off sharply, "Eh?"

Steve said, "We found their headquarters. One of their members cracked. Ben Ruthenberg of the F.B.I. found he had a morals rap against him some years ago and scared him into talking by threats of exposure. At any rate, you're right. They had established themselves in some government buildings going back to Spanish-American War days. We've arrested eight or ten officials that were involved."

"But the money?"

"The money was gone," Steve said bitterly. "But Susan was right. There had evidently been room after room of it, stacked to the ceiling. Literally billions of dollars. They'd moved out hurriedly, but they left kicking around enough loose hundreds, fifties, twenties, tens and fives to give us an idea. Look, Woolford, I thought you'd been pulled off this case and that Walt Foster was handling it."

Larry said sourly, "I'm beginning to think so, too. They're evidently not even bothering to let me know about developments like this. See you later, Steve."

The other's face faded off.

Larry Woolford looked across the double desk at Irene Day. "Look," he said, "when you're offered a promotion, take it. If you don't, someone else will and you'll be out in the cold."

Irene Day said brightly, "I've always known that, sir."

He looked at her. The typical eager beaver. Sharp as a whip. Bright as a button. "I'll bet you have," he muttered.

"I beg your pardon, Mr. Woolford?"

The phone lit and La Verne said, "The Boss wants to talk to you, Larry." Her face faded and Larry's superior was scowling at him.

He snapped, "Did you get anything on this medical records thing, Woolford?"

"Medical records?" Larry said blankly.

The Boss grunted in deprecation.

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"No, I suppose you haven't. I wish you would snap into it, Woolford. I don't know what has happened to you of late. I used to think that you were a good field man." He flicked off abruptly.

Larry dialed LaVerne Polk. "What in the world was the Boss just talking about, LaVerne? About medical records?"

LaVerne said, frowning, "Didn't you know? The Movement's been at it again. They've fouled up the records of the State Medical Licensing bureaus, at the same time sabotaging the remaining records of most, if not all, of the country's medical schools. They struck simultaneously, throughout the country."

He looked at her, expressionlessly.

LaVerne said, "We've caught several hundred of those responsible. It's the same thing. Attack on the social-label. From now on, if a man tells you he's an Ear, Eye and Throat specialist, you'd better do some investigation before letting him amputate your tongue. You'd better use your judgment before letting *any* doctor you don't really know about, work on you. It's a madhouse, Larry."

Larry Woolford, for long moments after LaVerne had broken the connection, stared unseeingly at his secretary across from him until she stirred.

He brought his eyes back to the present. "Another preliminary move, not the important thing, yet. Not the big explosion they're figuring on. Where have they taken that money, and why?"

Irene Day blinked at him. "I don't know, I'm sure, sir."

Larry said, "Get me Mr. Foster on the phone, Irene."

When Walt Foster's unhappy face faded in, Larry said, "Walt did you get Frol Eivazov?"

"Eivazov?" the other said impatiently. "No. We haven't spent much effort on it. I think this hunch of yours is like the other ones you've been having lately, Woolford. Frol Eivazov was last reported by our operatives as being in North Korea."

"It wasn't a hunch," Larry said tightly. "He's in this country on an assignment dealing with the Movement."

"Well, that's your opinion," Foster said snappishly. "I'm busy, Woolford. See here, at present you're under my orders on this job. In the way of something to do, instead of sitting around in that office, why don't you follow up this Eivazov thing yourself?" He considered it a moment. "That's an order, Woolford. Even if you don't locate him, it'll keep you out of our hair."

After the other was gone, Larry Woolford leaned back in his chair, his face flushed as though the other had slapped it. In a way, he had.

Larry said slowly, "Miss Day, dial me Hans Distelmayer. His offices are over in the Belmont Building."

As always, the screen remained blank as the German spy master spoke.

Larry said, "Hans, I want to talk to Frol Eivazov."

"Ah?"

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"I want to know where I can find him."

The German's voice was humorously gruff. "My friend, my friend."

Larry said impatiently, "I'm not interested in arresting him at this time. I want to talk to him."

The other said heavily. "This goes beyond favors, my friend. On the face of it, I am not in business for my health. And what you ask is dangerous from my viewpoint. You realize that upon occasion my organization does small tasks for the Soviets . . ."

"Ha!" Larry said bitterly.

". . . And," the German continued, unruffled, "it is hardly to my interest to gain the reputation of betraying my sometimes employers. Were you on an assignment in, say, Bulgaria or Hungary, would you expect me to betray you to the *Chrezvychainaya Komissiya?*"

"Not unless somebody paid you enough to make it worth while," Larry said dryly.

"Exactly," the espionage chief said.

"Look," Larry said. "Send your bill to this department, Hans. I've been given carte blanche on this matter and I want to talk to Frol. Now, where is he?"

The German chuckled heavily. "At the Soviet Embassy."

"What! You mean they've got the gall to house their top spy right in —"

Distelmayer interrupted him. "Friend Eivazov is currently accredited as a military attaché and quite correctly. He holds the rank of colonel, you know. He entered this country quite legally, the only precaution taken was to use his second name, Kliment, instead of Frol, on his papers. Evidently, your people passed him by without a second look. Ah, I understand he went to the trouble of making some minor changes in his facial appearance."

"We'll expect your bill, Distelmayer," Larry said. "Good-by."

He got up and reached for his hat, saying to Irene Day, "I don't know how long I'll be gone." He added, wryly, "If either Foster or the Boss try to get in touch with me, tell them I'm carrying out orders."

He drove over to the Soviet Embassy, parked his car directly before the building.

The American plainclothesmen stationed near the entrance, gave him only a quick onceover as he passed. Inside the gates, the impassive Russian guards didn't both to flicker an eyelid.

At the reception desk in the immense entrada, he identified himself. "I'd like to see Colonel Frol Eivazov."

"I am afraid—" the clerk began stiffly.

"I suppose you have him on the records as Kliment Eivazov."

The clerk had evidently touched a concealed button. A door opened and a junior embassy official approached them.

Larry restated his desire. The other began to open his mouth in denial, then shrugged. "Just a moment," he said.

He was gone a full twenty min-

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utes. When he returned, he said briefly, "This way, please."

Frol Eivazov was in an inner office, in full uniform. He came to his feet when Larry Woolford entered and said to the clerk, "That will be all, Vova." He was a tall man, as Slavs go, but heavy of build and heavy of face.

He shook hands with Larry. "It's been a long time," he said in perfect English. "That conference in Warsaw, wasn't it? Have a chair, Mr. Woolford."

Larry took the offered chair and said, "How in the world did you expect to get by with this nonsense? We'll have you declared *persona non grata* in a matter of hours."

"It's not important," Eivazov shrugged. "I have found what I came to find. I was about to return to report any way."

"We won't do anything to hinder you, colonel," Larry said dryly.

Eivazov snapped his fingers. "It's all amusing," he said. "In our country we would quickly deal with this Movement nonsense. You Americans with your pseudo-democracy, your labels without reality, your—"

Larry said wearily, "Please, Frol, I promise not to convert you if you promise not to convert me. Needless to say, my department isn't happy about your presence in this country. You'll be watched from now on. We've been busy with other matters . . ."

Here the Russian laughed.

". . . Or we'd already have flushed you." He allowed his voice to go curious. "We've wondered about your interest in this phase of our internal affairs."

The Russian agent let his facade slip even farther, his heavy lips sneering. "We are interested in all phases of your antiquated socio-economic system, Mr. Woolford. In the present peaceful economic competition between East and West, we would simply *loath* to see anything happen to your present culture." He hesitated deliberately. "If you can call it a culture."

Larry said, unprovoked, "If I understand you correctly, you are not in favor of the changes the Movement advocates."

The Russian shrugged hugely. "I doubt if they are possible of achievement. The organization is a sloppy one. Revolutionary? Nonsense," he scoffed. "They have no plans to change the government. No plans for overthrowing the regime. Ultimately, what this country needs is true Communism. This so-called Movement doesn't have that as its eventual goal. It is laughable."

Larry said, interestedly, "Then perhaps you'll tell me what little you've found out about the group."

"Why not?" The Russian pursed his lips. "They are composed of impractical idealists. Scientists, intellectuals, a few admitted scholars and even a few potential leaders. Their sabotage of your Department of Records was an amusing farce, but, frankly, I have been unable to discover the purpose of their interest in rockets. For a time I contemplated

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the possibility that they had a scheme to develop a nuclear bomb, and to explode it over Greater Washington in the belief that in the resulting confusion they might seize power. But, on the face of it their membership is incapable of such an effort."

"Their interest in rockets?" Larry said softly.

"Yes, as you've undoubtedly discovered, half the rocket technicians of your country seem to have joined with them. We got the tip through"—the Russian cleared his throat—"several of our converts who happen to be connected with your space efforts groups."

"Is that so?" Larry said. "I wondered what you thought about their interest in money."

It was the other's turn to look blank. "Money?" he said.

"That's right. Large quantities of money."

The Russian said, frowning, "I suppose most citizens in your capitalist countries are interested largely in money. One of your basic failings."

Driving back to the office, Larry Woolford let it pile up on him.

Ernest Self had been a specialist in solid fuel for rockets. When Larry had questioned Professor Voss that worthy had particularly stressed his indignation at how Professor Goddard, the rocket pioneer, had been treated by his contemporaries. Franklin Nostrand had been employed as a technician on rocket research at Madison Air Laboratories. It was too darn much for coincidence.

And now something else that had been nagging away at the back of his mind suddenly came clear.

Susan Self had said that she and her father had seen the precision dancers at the New Roxy Theater in New York and later the Professor had said they were going to spend the money on chorus girls. Susan had got it wrong. The Rockettes—the precision chorus girls. The Professor had said they were going to spend the money on *rockets,* and Susan had misunderstood.

But billions of dollars expended on rockets? How? But, above all, to what end?

If he'd only been able to hold onto Susan, or her father; or to Voss or Nostrand, for that matter. Someone to work on. But each had slipped through his fingers.

Which brought something else up from his subconscious. Something which had been tugging at him.

At the office, Irene Day was packing her things as he entered. Packing as though she was leaving for good.

"What goes on?" Larry growled. "I'm going to be needing you. Things are coming to a head."

She said, a bit snippishly, Larry thought, "Miss Polk, in the Boss' office, said for you to see her as soon as you came in, Mr. Woolford."

"Oh?"

He made his way to LaVerne's office, his attention actually on the ideas churning in his mind.

She looked up when he entered.

Larry said, "The Boss wanted to see me?"

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LaVerne ducked her head, as though embarrassed. "Not exactly, Larry."

He gestured with his thumb in the direction of his own cubicle office. "Irene just said you wanted me."

LaVerne looked up into his face. "The Boss and Mr. Foster, too, are boiling about your authorizing that Distelmayer man to bill this department for information he gave you. The Boss hit the roof. Something about the Senate Appropriations Committee getting down on him if it came out that we bought information from professional espionage agents."

Larry said, "It was information we needed, and Foster gave me the go ahead on locating Frol Eivazov. Maybe I'd better see the Boss."

LaVerne said, "I don't think he wants to see you, Larry. They're up to their ears in this Movement thing. It's in the papers *now* and nobody knows what to do next. The President is going to make a speech on TriD, and the Boss has to supply the information. His orders are for you to resume your vacation. To take a month off and then see him when you get back."

Larry sank down into a chair. "I see," he said. "And at that time he'll probably transfer me to janitor service."

"Larry," LaVerne said, almost impatiently, "why in the world didn't you take that job Walt Foster has now when the Boss offered it to you?"

"Because I'm stupid, I suppose," Larry said bitterly. "I thought I could do more working alone than at an administrative post tangled in red tape and bureaucratic routine."

She said, "Sorry, Larry." She sounded as though she meant it.

Larry stood up. "Well, tonight I'm going to hang one on, and tomorrow it's back to Florida." He said in a rush, "Look LaVerne, how about that date we've been talking about for six months or more?"

She looked up at him. "I can't stand vodka martinis."

"Neither can I," he said glumly. "And I don't get a kick out of prancing around, a stuffed shirt among fellow stuffed shirts, at some goings-on that supposedly improves my culture status."

Larry said, "At the house I have every known brand of drinkable, and a stack of . . . what did you call it? . . . corny music. We can mix our own drinks and dance all by ourselves."

She tucked her head to one side and looked at him suspiciously. "Are your intentions honorable?"

"We can even discuss that later," he said sourly.

She laughed. "It's a date, Larry."

He picked her up after work, and they drove to his Brandywine autobungalow, largely quiet the whole way.

At one point she touched his hand with hers and said, "It'll work out, Larry."

"Yeah," he said sourly. "I've put ten years into ingratiating myself with the Boss. Now, overnight, he's

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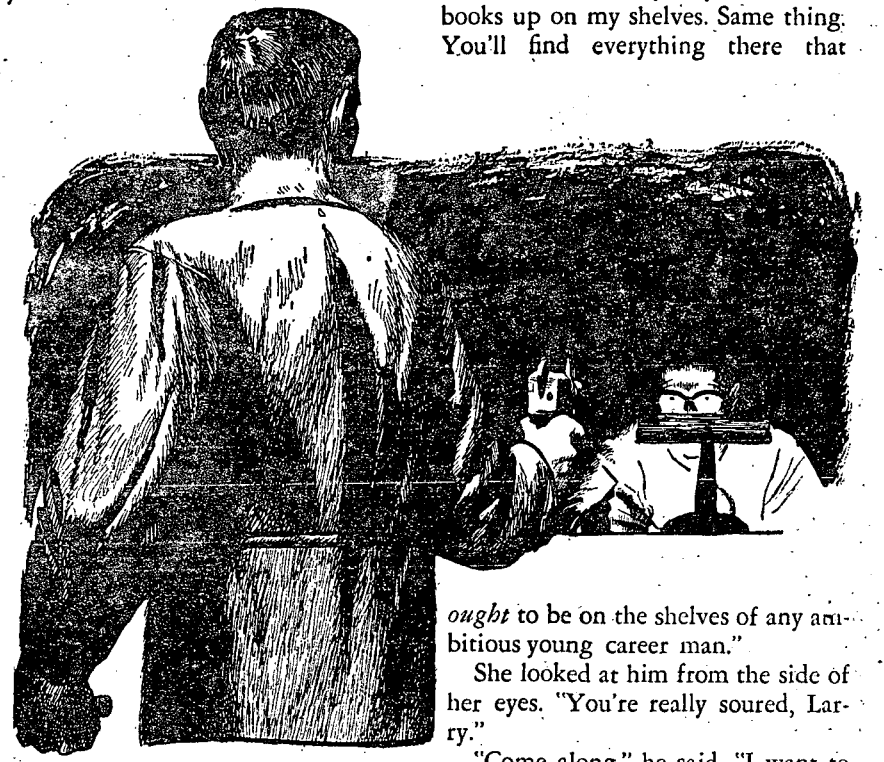
got a new boy. I suppose there's some moral involved."

When they pulled up before his auto-bungalow, LaVerne whistled appreciatively. "Quite a neighborhood you're in."



He grunted. "A good address. What our friend Professor Voss would call one more status symbol, one more social-label. For it I pay about fifty per cent more rent than my budget can afford."

He ushered her inside and took her jacket. "Look," he said, indicating his living room with a sweep of hand. "See that volume of Klee reproductions there next to my reading chair? That proves I'm not a weird. Indicates my culture status. Actually, my appreciation of modern art doesn't go any further than the Impressionists. But don't tell anybody. See those books up on my shelves. Same thing. You'll find everything there that *ought* to be on the shelves of any ambitious young career man."

She looked at him from the side of her eyes. "You're really soured, Larry."

"Come along," he said. "I want to show you something."

He took her down the tiny elevator to his den.

"How hypocritical can you get?" he asked her. "This is where I really live. But I seldom bring anyone here. Wouldn't want to get a reputation as a weird. Sit down, LaVerne, I'll make a drink. How about a Sidecar?"

She sank onto the couch, kicked her

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shoes off and slipped her feet under her. "I'd love one," she said.

His back to her, he brought brandy and cointreau from his liquor cabinet, lemon and ice from the tiny refrigerator.

"What?" LaVerne said mockingly. "No auto-bar?"

"Upstairs with the rest of the status symbols," Larry grunted.

He put her drink before her and turned and went to the record player.

"In the way of corny music, how do you like that old-timer, Nat Cole?"

"King Cole? Love him," LaVerne said.

The strains of "For All We Know" penetrated the room.

Larry sat down across from her, finished half his drink in one swallow.

"I'm beginning to wonder whether or not this Movement doesn't have something," he said.

She didn't answer that. They sat in silence for a while, appreciating the drink. Nat Cole was singing "The Very Thought of You" now. Larry got up and made two more cocktails. This time he sat next to her. He leaned his head back on the couch and closed his eyes.

Finally he said softly, "When Steve Hackett and I were questioning Susan, there was only one other person who knew that we'd picked her up. There was only one person other than Steve and me who could have warned Ernest Self to make a getaway. Later on, there was only one person who could have warned Frank Nostrand so that he and the Professor could find a new hideout."

She said sleepily, "How long have you known about that, darling?"

"A while," Larry said, his own voice quiet. "I figured it out when I also decided how Susan Self was spirited out of the Greater Washington Hilton, before we had the time to question her further. Somebody who had access to tapes made of me while I was making phone calls cut out a section and dubbed in a voice so that Betsy Hughes, the Secret Service matron who was watching Susan, was fooled into believing it was I ordering the girl to be turned over to the two Movement members who came to get her."

LaVerne stirred comfortably and let her head sink onto his shoulder. "You're so warm and . . . comfortable," she said.

Larry said softly, "What does the Movement expect to do with all that counterfeit money, LaVerne?"

She stirred against his shoulder, as though bothered by the need to talk. "Give it all away," she said. "Distribute it all over the country and destroy the nation's social currency."

It took him a long moment to assimilate that.

"What have the rockets to do with it?"

She stirred once again, as though wishing he'd be silent. "That's how it will be distributed. About twenty rockets, strategically placed, each with a *warhead* of a couple of tons of money. Fired to an altitude of a couple of hundred miles and then the money is spewed out. In falling, it will be distributed over cities and

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countryside, everywhere. Billions upon billions of dollars worth."

Larry said, so softly as hardly to be heard, "What will that accomplish?"

"Money is the greatest social-label of them all. The Professor believes that through this step the Movement will have accomplished its purpose. That people will be forced to utilize their judgment, rather than depend upon social-labels."

Larry didn't follow that, but he had no time to go further now. He said, still evenly soft, "And when is the Movement going to do this?"

LaVerne moved comfortably. "The trucks go out to distribute the money tonight. The rockets are waiting. The firing will take place in a few days."

"And where is the Professor now?"

"Where the money and the trucks are hidden, darling. What difference does it make?" LaVerne said sleepily.

"And where is that?"

"At the Greater Washington Trucking Corporation. It's owned by one of the Movement's members."

He said, "There's a password. What is it?"

"Judgment."

Larry Woolford bounced to his feet. He looked down at her, then over at the phone. In three quick steps he was over to it. He grasped its wires and yanked them from the wall, silencing it. He slipped into the tiny elevator, locking the door to the den behind him.

As the door slid closed, her voice wailed, still sleepily husky, "Larry, darling, where are you—"

He ran down the walk of the house, vaulted into the car and snapped on its key. He slammed down the lift lever, kicked the thrust pedal and was thrown back against the seat by the acceleration.

Even while he was climbing, he flicked on the radio-phone, called Personal Service for the location of the Greater Washington Trucking Corporation.

Fifteen minutes later, he parked a block away from his destination, noting with satisfaction that it was still an hour or more to go until dark. His intuition, working doubletime now, told him that they'd probably wait until nightfall to start their money-laden trucks to rolling.

He hesitated momentarily before turning on the phone and dialing the Boss' home address.

When the other's face faded in, it failed to display pleasure when the caller's identity was established. His superior growled, "Confound it, Woolford, you know my privacy is to be respected. This phone is to be used only in extreme emergency."

"Yes, sir," Larry said briskly. "It's the Movement—"

The other's face darkened still further. "You're not on that assignment any longer, Woolford. Walter Foster has taken over and I'm sympathetic to his complaints that you've proven more a hindrance than anything else."

Larry ignored his words, "Sir, I've tracked them down. Professor Voss is at the Greater Washington Trucking Corporation garages here in the Alexandria section of town. Any moment

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now, they're going to start distribution of all that counterfeit money on some scatterbrain plan to disrupt the country's exchange system."

Suddenly alert, the department chief snapped, "Where are you, Woolford?"

"Outside the garages, sir. But I'm going in now."

"You stay where you are," the other snapped. "I'll have every department man and every Secret Service man in town over there within twenty minutes. You hang on. Those people are lunatics, and probably desperate."

Inwardly, Larry Woolford grinned. He wasn't going to lose this opportunity to finish up the job with him on top. He said flatly, "Sir, we can't chance it. They might escape. I'm going in!" He flicked off the set, dialed again and raised Sam Sokolski.

"Sam," he said, his voice clipped. "I've cornered the Movement's leader and am going in for the finish. Maybe some of you journalist boys better get on over here." He gave the other the address and flicked off before there were any questions.

From the dash compartment he brought a heavy automatic, and checked the clip. He put it in his hip pocket and left the car and walked toward the garages. Time was running out now.

He strode into the only open door, without shift of pace. Two men were posted nearby, neither of them truckmen by appearance. They looked at him in surprise.

Larry clipped out, "The password is *Judgment*. I've got to see Professor Voss immediately."

One of them frowned questioningly, but the other was taken up with the urgency in Woolford's voice. He nodded with his head. "He's over there in the office."

Now ignoring them completely, Larry strode past the long rows of sealed delivery vans toward the office.

He pushed the door open, entered and closed it behind him.

Professor Peter Voss was seated at a paper-littered desk. There was a cot with an army blanket in a corner of the room, some soiled clothing and two or three dirty dishes on a tray. The room was being lived in, obviously.

At the agent's entry, the little man looked up and blinked in distress through his heavy lenses.

Larry snapped, "You're under arrest, Voss."

The Professor was obviously dismayed, but he said in as vigorous a voice as he could muster, "Nonsense! On what charge?"

"Counterfeiting, among many. Your whole scheme has fallen apart, Voss. You and your Movement, so-called, are finished."

The Professor's eyes darted, left, right. To Larry Woolford's surprise, the Movement's leader was alone in here. Undoubtedly, he was awaiting others, drivers of the trucks, technicians involved in the rockets, other subordinates. But right now he was alone.

If Woolford correctly diagnosed

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the situation, Voss was playing for time, waiting for the others. Good enough, so was Larry Woolford. Had the Professor only known it, a shout would have brought at least two followers and the government agent would have had his work cut out for him.

Woolford played along. "Just what is this fantastic scheme of yours for raining down money over half the country, Voss? The very insanity of it proves your whole outfit is composed of a bunch of nonconformist weirds."

The Professor was indignant—and stalling for time. He said, "Nonconformists is correct! He who conforms in an incompetent society is an incompetent himself."

Larry stood, his legs apart and hands on hips. He shook his head in simulated pity at the angry little man. "What's all this about raining money down over the country?"

"Don't you see?" the other said. "The perfect method for disrupting our present system of social-labels. With billions of dollars, perfect counterfeit, strewing the streets, the fields, the trees, available for anyone to pick up, all social currency becomes worthless. Utterly unusable. And it's no use to attempt to print more with another design, because we can duplicate it as well. Our experts are the world's best, we're not a group of sulking criminals but capable, trained, dedicated men.

"Very well! We will have made it absolutely impossible to have any form of mass-produced social currency."

Larry stared at him. "It would completely foul the whole business system! You'd have chaos!"

"At first. Private individuals, once the value of money was seen to be zero, would have lost the amount of cash they had on hand. But banks and such institutions would lose little. They have accurate records that show the actual values they held at the time our money rains down."

Larry was bewildered. "But what are you getting at? What do you expect to accomplish?"

The Professor, on his favorite subject, said triumphantly, "The only form of currency that can be used under these conditions is the *personal* check. It's not mass produced, and mass-production can't duplicate it. It's immune to the attack. Business has to go on, or people will starve—so personal checks will have to replace paper money. Credit cards and traveler's checks won't do—we can counterfeit them, too, and will, if necessary. Realize of course that hard money will still be valid, but it can't be utilized practically for any but small transactions. Try taking enough silver dollars to buy a refrigerator down to the store with you."

"But what's the purpose?" Larry demanded, flabbergasted.

"Isn't it obvious? Our whole Movement is devoted to the destruction of social-label judgments. It's all very well to say: *You should not judge your fellow man* but when it comes to accepting another man's personal check, friend, you damn well have to! The bum check artist might have a

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field day to begin with—but only to begin with."

Larry shook his head in exasperation. "You people are a bunch of anarchists," he accused.

"No," the Professor denied. "Absolutely not. We are the antithesis of the anarchist. The anarchist says, 'No man is capable of judging another.' We say, 'Each man must judge his fellow, must demand proper evaluation of him.' To judge a man by his clothes, the amount of money he owns, the car he drives, the neighborhood in which he lives, or the society he keeps, is out of the question in a vital culture."

Larry said sourly, "Well, whether or not you're right, Voss, you've lost. This place is surrounded. My men will be breaking in shortly."

Voss laughed at him. "Nonsense. All you've done is prevent us from accomplishing this portion of our program. What will you do after my arrest? You'll bring me to trial. Do you remember the Scopes' Monkey Trial back in the 1920s which became a world appreciated farce and made Tennessee a laughingstock? Well, just wait until you get *me* into court backed by my organization's resources. We'll bring home to every thinking person, not only in this country, but in the world, the fantastic qualities of our existing culture. Why, Mr.-Secret-Agent-of-Anti-Subversive-Activity you aren't doing me an injury by giving me the opportunity to have my day in court. You're doing me a favor. Newspapers, radios, TriD will give me the chance to expound my program in the home of every thinking person in the world."

There was a fiery dedication in the little man's eyes. "This will be my victory, not my defeat!"

There were sounds now, coming from the other rooms—the garages. Some shouts and scuffling. Faintly, Larry Woolford could hear Steve Hackett's voice.

He was staring at the Professor, his eyes narrower.

The Professor was on his feet. He said in defiant triumph, "You think that you'll win prestige and honor as a result of tracking the Movement down, don't you, Mr. Woolford? Well, let me tell you, you won't! In six months from now, Mr. Woolford, you'll be a laughingstock."

That did it.

Larry said, "You're under arrest. Turn around with your back to me."

The Professor snorted his contempt, turned his back and held up his hands, obviously expecting to be searched.

In a fluid motion, Larry Woolford drew his gun and fired twice. The other with no more than a grunt of surprise and pain, stumbled forward to his knees and then to the floor, his arms and legs akimbo.

The door broke open and Steve Hackett, gun in hand, burst in.

"Woolford!" he barked. "What's up?"

Larry indicated the body on the floor. "There you are, Steve," he said. "The head of the counterfeit ring. He was trying to escape. I had to shoot him."

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Behind Steve Hackett crowded Ben Ruthenberg of the F.B.I. and behind him half a dozen others of various departments.

The Boss came pushing his way through.

He glared down at the Professor's body, then up at Larry Woolford.

"Good work, Lawrence," he said. "How did you bring it off?"

Larry replaced the gun in his holster and shrugged modestly. "The Polk girl gave me the final tip-off, sir. I gave her some Scop-Serum in a drink and she talked. Evidently, she was a member of the Movement."

The Boss was nodding wisely. "I've had my eye on her, Lawrence. An obvious weird. But we will have to suppress that Scop-Serum angle." He slapped his favorite field man on the arm jovially. "Well, boy, this means promotion, of course."

Larry grinned. "Thanks, sir. All in a day's work. I don't think we'll have much trouble with the remnants of this Movement thing. The pitch is to treat them as counterfeiters, not subversives. Try them for that. Their silly explanations of what they were going to do with the money will never be taken seriously." He looked down at the small corpse. "Particularly now that their kingpin is gone."

A new wave of agents, F.B.I. men and prisoners washed into the room and Steve Hackett and Larry were for a moment pushed back into a corner by themselves.

Steve looked at him strangely and said, "There's one thing I'd like to know: Did you really have to shoot him, Woolford?"

Larry brushed it off. "What's the difference? He was as weird as they come, wasn't he?"

THE END

IN TIMES TO COME

There have been a lot of yarns about Earth spreading colonies through the galaxy—colony planets of other suns. But not so much consideration of just what it means for a human being, evolved on a particular planet, of a particular sun, with a particular climate, to try to adapt to another world. It can, for one thing, lead to the many-times deadly question: "Who says *you're* human?"

Harry Harrison is doing a very nice job of considering just what it means to become the owners of another planet; a planet belongs to those who can live on it. His story "Deathworld" last year, for instance, was one.

And starting next month is "Sense of Obligation," which is, in several respects, another "Deathworld"—both in that the planet Dis was, if anything, nastier, in its very different way, than "Deathworld"—and the story is as much a violent adventure as was that other yarn!

The Editor.

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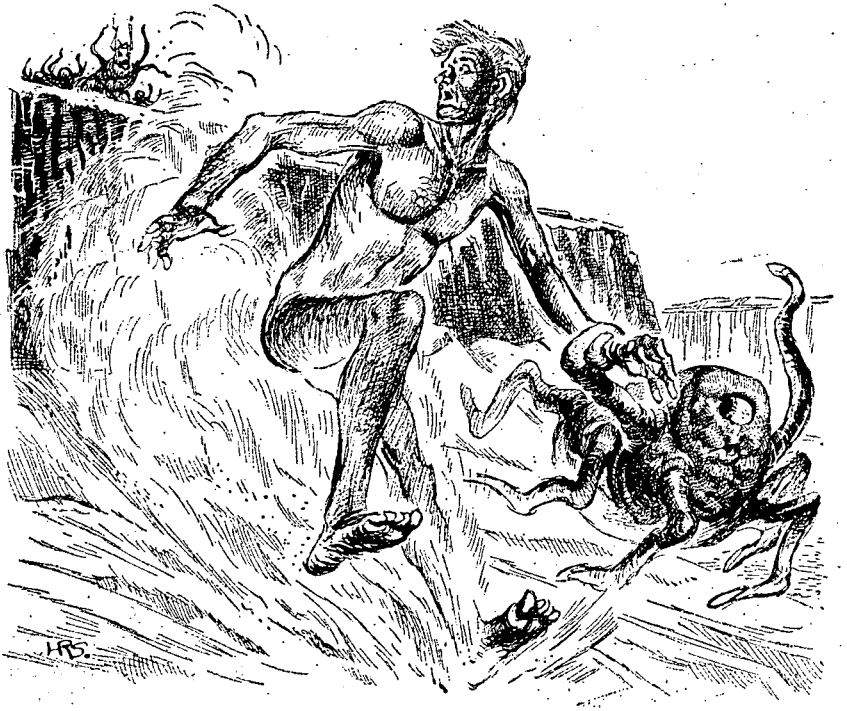
FLAMEDOWN

By H. B. FYFE



It was, of course, one Hell of an ending for a trip to Mars—

Illustrated by Summers

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HARLIE HOLMES lost touch with reality amid rending and shattering sounds that lingered dimly. Blackness engulfed him in a wave of agony.

He was not sure exactly when the possibility of opening his eyes occurred to him. Vaguely, he could sense—"remember" was too definite—much tugging and hauling upon his supine body. It doubtless seemed justifiable, but he flinched from recalling more clearly that which must have been so extremely unpleasant.

Gently, now, he tried rolling his head a few inches right, then left. When it hurt only one-tenth as much as he feared, he let his eyes open.

"Hel-lo!" rasped the bulbous creature squatting beside his pallet.

Charlie shut his eyes quickly, and very tightly.

Something with a dampish, spongy tip, probably one of the grape-red tentacles he had glimpsed, prodded his shoulder.

"*Hel-lo!*" insisted the scratchy voice.

Charlie peeped warily, was trapped at it, and opened his eyes resignedly.

"Where'n'ell am I?" he inquired.

It sounded very trite, even in his confused condition. Sections of the dark red skin before him, especially on the barrel-shaped belly, quivered as he spoke.

"Surely," grated the remarkable voice, "you remember something?"

"The crash!" gasped Charlie, sitting up abruptly.

He held his breath, awaiting the knifing pain it seemed natural to expect. When he felt none, he cautiously fingered his ribs, and then a horrid thought prompted him to wiggle his bare toes. Everything seemed to be in place.

He lay in a small room, on a thin pallet of furs. Floor and walls of slick, ocher clay reflected the bright outside light pouring through a wide doorway.

"What's all the sand?" he demanded, squinting at the heatwaves outside.

"You do not recognize it? Look again, Earthman!"

Earthman! thought Charlie. *It must be real: I can still see him. What a whack on the head I must have got!*

"You are in pain?" asked the creature solicitously.

"Oh . . . no. Just . . . I can't remember. The crash . . . and then—"

"Ah, yes. You have not been conscious for some time." His reddish host rippled upward to stand more or less erect upon three thick tentacles. "Even with us, memory is slow after shock. And you may be uneasy in the lighter gravity."

Light gravity! reflected Charlie. *That can only mean—MARS! Sure! That must be it—I was piloting a rocket and cracked up somewhere on Mars.*

It felt right to him. He decided that the rest of his memory would return.

"Are you able to rise?" asked the other, extending a helpful tentacle.

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The Earthman managed to haul himself stiffly to his feet.

"Say, my name is Holmes," he introduced himself dizzily.

"I am Kho Theki. In your language, learned years since from other spacemen, I might say 'Fiery Canalman.'"

"*Has* to be Mars," muttered Charlie under his breath. "What a bump! When can you show me what's left of the ship?"

"There will be no time," answered the Martian.

Bunches of small muscles twitched here and there across the front of his round, pudgy head. Charlie was getting used to the single eye, half the size of an orange and not much duller. With imagination, the various lumps and organs surrounding it might be considered a face.

"The priestesses will lead the crowd here," predicted Kho. "They know I took an Earthman, and I fear they have finished with the others."

"Finished with— *What?*" demanded the Earthman, shaking his head in hopes of clearing it enough to figure out what was wrong.

"It has been an extremely dry season." Kho rippled his tentacles and moved lissomely to the doorway, assuming a grotesquely furtive posture as he peered out. "The people are maddened by the drought. They will be aroused to sacrifice you to the Canal Gods, like the others who survived."

"Canal Gods!" croaked Charlie. "This can't be right! Aren't you civilized here? I can't be the only Earthman they've seen!"

"It is true that Earthmen are perfectly safe at most times."

"But the laws! The Earth consul—"

Kho snapped the tip of a tentacle at him.

"The canals are low. You can feel the heat and dryness for yourself. The crowds are inflamed by temple prophecies. And then, your ship, flaming down from the skies—"

He snapped all his tentacle tips at once.

From somewhere outside, a threatening murmur became audible. It was an unholy blend of rasping shouts and shriller chanting, punctuated by notes of a brassy gong. As Charlie listened, the volume rose noticeably.

Kho reached out with one tentacle and wrapped six inches about the Earthman's wrist. When he plunged through the doorway, Charlie perforce went right with him.

Whipping around a corner of the hut, he had time for a quick squint at the chanters. Kho alone had looked weirdly alien. Two hundred like him—!

Led by a dozen bulgy figures in streaming robes, masked and decorated in brass, the natives were swarming over the sand toward the fugitives. They had evidently been busy. Above a distant cluster of low buildings, a column of smoke spiraled upward suggestively.

Kho led the way at a flowing gal-

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lop over a sandstone ridge and down a long slope toward what looked like the junction of two gullies.

"The canal," he wheezed. "With luck, we may find a boat."

A frenzied screech went up as the mob topped the ridge and regained sight of them. Charlie, having all he could do to breathe in the thin air, tried to shake his wrist loose. Now that they were descending the slope, he saw where the water was. They slid down a four-foot drop in a cloud of fine, choking dust, and were faced by several puntlike craft stranded on the mudflat beyond. The water was fifty feet farther.

"We should have gone downstream," said Kho, "but we can wade."

Their momentum carried them several steps into the mud before Charlie realized how wrong that was. Then, as they floundered about to regain the solid bank, it became apparent that they would never reach it in time.

"They are catching us," rasped Kho.

The howling crowd was scarcely a hundred yards away. The heat waves shimmered above the reddish desert sand until the Martians were blurred before Charlie's burning eyes. His feet churned the clinging mud, and he felt as if he were running in a dream.

"I'm sorry you're in it, too," he panted.

"It does not matter. I act as I must."

The Earthman rubbed sweat from his eyes with the back of a muddy hand.

"Everything is wrong," he mumbled. "I still can't remember cracking up the ship. Why did I always want to be a rocket pilot? Well . . . I made my bed!"

The oncoming figures wavered and blurred in the heat. Kho emitted a grating sound reminiscent of an Earthly chuckle.

"As do all you mortals—who finally have to lie in them," he rasped. "I will tell you now, since I can carry this episode little farther. You have never piloted a spaceship."

Charlie gaped at him incredulously.

"You . . . you . . . what about the wreck?"

"It was a truck that hit you, Charles Holmes. You had no more sense than to be crossing the street with your nose in a magazine just purchased on the corner."

With some dulled, creeping, semidetached facet of his mind, Charlie noted that the running figures still floated above the sand without actually drawing near.

"Are you— Do you mean I'm . . . d-d-d—?"

"Of course you are," grated Kho amiably. "And in view of certain actions during your life, there will be quite a period of—shall we say—probation. When I was assigned to you, your reading habits suggested an amusing series of variations. You cannot know how dull it is to keep frustrating the same old dreams!"

"Amusing?" repeated Charlie, be-

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yond caring about the whimper in his tone.

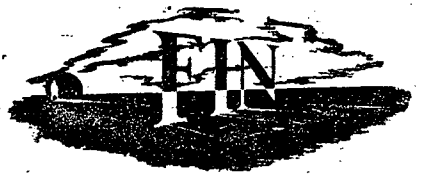
The mob was dissolving into thin smoke, and the horizon was shrinking.

Kho himself was altering into something redder of skin but equipped with a normal number of limbs, discounting the barbed tail. The constant heat of the "desert" began, at last, to seem explicable.

"For me a great amusement," grinned Kho, displaying hideous tusks. "Next time, I'll be a Venusian. You will lose again. Then we can visit other planets, and stars . . . oh, we shall see a lot of each other!"

He cheerfully polished one horn with a clawed finger.

"*You* won't enjoy it!" he promised.



THE ANALYTICAL LABORATORY

It's time, I think, to restate the system used in the Lab, for the benefit of new readers—and for old readers who may have forgotten.

The authors are acutely interested in your votes—as much as I am. We pay each author 3¢ a word on acceptance of his story—and to the author who is voted first place by you readers, we pay an additional 1¢ a word. The second place author wins ½¢ a word bonus.

In essence, your vote, as a reader, can reward the author who's done an extra-good job of entertaining or satisfying you—if he earns your thanks, give him his due. Send us a postcard or letter voting for the stories in order of your preference—and we pay the bonus.

Each month the votes are counted, and the Lab chart worked up. A vote for first place is scored as 1, second place, 2, third . . . and so on. Then the score for each story is totaled, and divided by the number of votes to determine the point-score. Low man wins, of course—because a story that was voted first by every voter would wind up with a point-score of 1.000.

So . . . if you want to thank the author who does a good job for you—send a vote!

continued on page 141

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Illustrated by Barberis

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When a stick-up artist uses a gun . . . he doesn't have to fire it to produce the desired results. And a military invasion has certain similar characteristics, if properly arranged . . .

. . THE QUAKER CANNON

By FREDERIK POHL and C. M. KORNBLUTH

I

LIEUTENANT John Kramer did crossword puzzles during at least eighty per cent of his waking hours. His cubicle in Bachelor Officers Quarters was untidy; one wall was stacked solid with newspapers and magazines to which he subscribed for their puzzle pages. He meant, from week to week, to clean them out but somehow never found time. The ern, or erne, a sea eagle, soared vertically through his days and by night the ai, a three-toed sloth, crept horizontally. In edes, or Dutch communes, dyers retted ecru, quaffing ades by the tun and thought was postponed.

John Kramer was in disgrace and, at thirty-eight, well on his way to becoming the oldest first lieutenant in the North American—and Allied—Army. He had been captured in '82 as an aftermath of the confused fighting around Tsingtao. A few exquisitely unpleasant months passed and

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he then delivered three TV lectures for the yutes. In them he announced his total conversion to Neo-Utilitarianism, denounced the North American—and Allied—military command as a loathesome pack of war-waging, anti-utilitarian mad dogs, and personally admitted the waging of viral warfare against the United Utilitarian Republics.

The yutes, or Utilitarians, had been faithful to their principles. They had wanted Kramer only for what he could do for them, not for his own sweet self, and when they had got the juice out of him they exchanged him. In '83 he came out of his fog at Fort Bradley, Utah, to find himself being court-martialed.

He was found guilty as charged, and sentenced to a reprimand. The lightness of the sentence was something to be a little proud of, if not very much. It stood as a grudging tribute to the months he had held out against involutional melancholia in the yute Blank Tanks. For exchanged PW's, the severity of their courts-martial was in inverse proportion to the duration of their ordeal in Utilitarian hands. Soldiers who caved in after a couple of days of sense-starvation could look forward only to a firing squad. Presumably a returned soldier dogged—or rigid—enough to be driven into hopeless insanity without co-operating would have been honorably acquitted by his court, but such a case had not yet come up.

Kramer's "reprimand" was not the face-to-face bawling-out suggested to a civilian by the word. It was a short letter with numbered paragraphs which said (1) you are reprimanded, (2) a copy of this reprimand will be punched on your profile card. This tagged him forever as a foul ball, destined to spend the rest of his military life shuffling from one dreary assignment to another, without hope of promotion or reward.

He no longer cared. Or thought he did not; which came to the same thing.

He was not liked in the Officers Club. He was bad company. Young officers passing through Bradley on their way to glory might ask him, "What's it *really* like in a Blank Tank, Kramer?" But beyond answering, "You go nuts," what was there to talk about? Also he did not drink, because when he drank he went on to become drunk, and if he became drunk he would cry.

So he did a crossword puzzle in bed before breakfast, dressed, went to his office, signed papers, did puzzles until lunch, and so on until the last one in bed at night. Nominally he was Commanding Officer of the 561st Provisional Reception Battalion. Actually he was—with a few military overtones—the straw boss of a gang of clerks in uniform who saw to the arrival, bedding, feeding, equipping, inoculation and transfer to a training unit of one thousand scared kids per week.

On a drizzle-swept afternoon in the spring of '85 Kramer was sounding one of those military overtones. It was his appointed day for a "sur-

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prise" inspection of Company D of his battalion. Impeccable in dress blues, he was supposed to descend like a thunderbolt on this company or that, catching them all unaware, striding arrogantly down the barracks aisle between bunks, white-gloved and eagle-eyed for dust, maddened at the sight of disarray, vengeful against such contraband as playing cards or light reading matter. Kramer knew, quite well, that one of his orderly room clerks always telephoned the doomed company to warn that he was on his way. He did not particularly mind it. What he minded was unfair definitions of key words, and ridiculously variant spellings.

The permanent-party sergeant of D Company bawled "Tench-*hut!*" when Kramer snapped the door open and stepped crisply into the barracks. Kramer froze his face into its approved expression of controlled annoyance and opened his mouth to give the noncom his orders. But the sergeant had miscalculated. One of the scared kids was still frantically mopping the aisle.

Kramer halted. The kid spun around in horror, made some kind of attempt to present arms with the mop and failed. The mop shot from his soapy hands like a slung baseball bat, and its soggy gray head schlooped against the lieutenant's dress-blue chest.

The kid turned white and seemed about to faint on the damp board floor. The other kids waited to see him destroyed.

Kramer was mildly irritated. "At ease," he said. "Pick up that mop. Sergeant, confound it, next time they buzz you from the orderly room don't cut it so close."

The kids sighed perceptibly and glanced covertly at each other in the big bare room, beginning to suspect it might not be too bad after all. Lieutenant Kramer then resumed the expression of a nettled bird of prey and strode down the aisle. Long ago he had worked out a "random" selection of bunks for special attention and now followed it through habit. If he had thought about it any more, he would have supposed that it was still spy-proof; but every noncom in his cadre had long since discovered that Kramer stopped at either every second bunk on the right and every third on the left, or every third bunk on the right and every second on the left—depending on whether the day of the month was odd or even. This would not have worried Kramer if he had known it; but he never even noticed that the men beside the bunks he stopped at were always the best-shaved, best-policed and healthiest looking in each barracks.

Regardless, he delivered a certain quota of meaningless demerits which were gravely recorded by the sergeant. Of blue-eyed men on the left and brown-eyed men on the right—this, at least, had not been penetrated by the noncoms—he went on to ask their names and home towns. Before discovering crossword puzzles he had memorized atlases, and so he had something to say about every home town he had yet encountered. In this

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respect at least he considered himself an above-average officer, and indeed he was.

It wasn't the Old Army, not by a long shot, but when the draft age went down to fifteen some of the Old Army's little ways had to go. One experimental reception station in Virginia was trying out a Barracks Mother system. Kramer, thankful for small favors, was glad they hadn't put him on that project. Even here he was expected, at the end of the inspection, to call the "men" around him and ask if anything was bothering them. Something always was. Some gangling kid would scare up the nerve to ask, gee, lieutenant, I know what the Morale Officer said, but exactly *why* didn't we ever use the megaton-head missiles, and another would want to know how come Lunar Base was such a washout, tactically speaking, sir. And then he would have to rehearse the dry "recommended discussion themes" from the briefing books; and then, finally, one of them, nudged on by others, would pipe up, "Lieutenant, what's it *like* in the Blank Tanks?" And he would know that already, forty-eight hours after induction, the kids all knew about what Lieutenant John Kramer had done.

But today he was spared. When he was halfway through the rigamarole the barracks phone rang and the sergeant apologetically answered it.

He returned from his office-cubicle on the double, looking vaguely frightened. "Compliments of General Grote's secretary, sir, and will you report to him at G-1 immediately.

"Thank you, sergeant. Step outside with me a moment."

Out on the duckboard walk, with the drizzle trickling down his neck, he asked: "Sergeant, who is General Grote?"

"Never heard of him, sir."

Neither had Lieutenant Kramer.

He hurried to Bachelor Officers Quarters to change his sullied blue jacket, not even pausing to glance at the puzzle page of the *Times,* which had arrived while he was at "work." Generals were special. He hurried out again into the drizzle.

Around him and unnoticed were the artifacts of an army base at war. Sky-eye search radars popped from their silos to scan the horizons for a moment and then retreat, the burden of search taken up by the next in line. Helicopter sentries on guard duty prowled the barbed-wire perimeter of the camp. Fort Bradley was not all reception center. Aboveground were the barracks, warehouses and rail and highway termini for processing recruits—ninety thousand men and all their goods—but they were only the skin over the fort itself. They were, as the scared kids told each other in the dayrooms, naked to the air. If the yutes ever *did* spring a megaton attack, they would become a thin coating of charcoal on the parade ground, but they would not affect the operation of the *real* Fort Bradley a bit.

The *real* Fort Bradley was a hardened installation beneath meters of reinforced concrete, some miles of

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rambling warrens that held the North American—and Allied—Army's G-1. Its business was people: the past, present and future of every soul in the Army.

G-1 decided that a fifteen-year-old in Duluth was unlikely to succeed in civilian schools and drafted him. G-1 punched his Army tests and civilian records on cards; consulted its card-punched tables of military requirements and assigned him, perhaps, to Machinist Training rather than Telemetering School. G-1 yanked a platoon leader halfway around the world from Formosa and handed him a commando for a raid on the yutes' Polar Station Seven. G-1 put foulball Kramer at the "head" of the 561st PRB. G-1 promoted and allocated and staffed and rewarded and punished.

Foulball Kramer approached the guardbox at the elevators to the warrens and instinctively squared his shoulders and smoothed his tie.

General Grote, he thought. He hadn't *seen* a general officer since he'd been commissioned. Not close up. Colonels and majors had court-martialed him. He didn't know who Grote was, whether he had one star or six, whether he was Assignment, Qualifications, Training, Evaluation, Psychological—or Disciplinary.

Military Police looked him over at the elevator head. They read him like a book. Kramer wore his record on his chest and sleeves. Dull gold bars spelled out the overseas months—for his age and arm, the Infantry, not enough. "Formosa," said a green ribbon, and "the storming of the beach" said a small bronze spearpoint on it. A brown ribbon told them "Chinese Mainland," and the stars on it meant that he had engaged in three of the five mainland campaigns—presumably Canton, Mukden and Tsingtao, since they were the first. After that, nothing. Especially not the purple ribbon that might indicate a wound serious enough to keep him out of further fighting.

The ribbons, his age and the fact that he was still a first lieutenant were grounds enough for the MPs to despise him. An officer of thirty-eight should be a captain at least. Many were majors and some were colonels. "You can go down, lieutenant," they told the patient foulball, and he went down to the interminable concrete tunnels of G-1.

A display machine considered the name *General Grote* when he typed it on its keyboard, and told him with a map where the general was to be found. It was a longish walk through the tunnels. While he walked past banks of clicking card-sorters and their servants he pondered other information the machine had gratuitously supplied:

GROTE, Lawrence W Lt Gen;
0-459732,
Unassigned

It did not lessen any of Kramer's puzzles. A three-star general, then. He couldn't *possibly* have anything to do with disciplining a lousy first-john. Lieutenant generals ran Army Groups, gigantic ad hoc assemblages of up to a hundred divisions, com-

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plete with air forces, missile groups, amphibious assault teams, even carrier and missile-sub task forces. The fact of his rank indicated that, whoever he was, he was an immensely able and tenacious person. He had gone through at least a twenty-year threshing of the wheat from the chaff, all up the screening and evaluation boards from second lieutenant to, say, lieutenant colonel, and then the murderous grind of accelerated courses at Command and General Staff School, the fanatically rigid selection for the War College, an obstacle course designed not to train the sub-standard up to competence but to keep them out. It was just this side of impossible for a human being to become a lieutenant general. And yet a few human beings in every generation did bulldoze their way through the little gap between the impossible and the almost impossible.

And such a man was unassigned?

Kramer found the office at last. A motherly, but sharp-eyed, WAC major told him to go right in.

John Kramer studied his three-star general while going through the ancient rituals of reporting-as-ordered. General Grote was an old man, straight, spare, white-haired, tanned. He wore no overseas bars. On his chest were all the meritorious service ribbons his country could bestow, but none of the decorations of the combat soldier. This was explained by a modest sunburst centered over the ribbons. General Grote was, had always been, General Staff Corps. A desk man.

"Sit down, lieutenant," Grote said, eying him casually. "You've never heard of me, I assume."

"I'm afraid not, sir."

"As I expected," said Grote complacently. "I'm not a dashing tank commander or one of those flying generals who leads his own raids. I'm one of the people who moves the dashing tank commanders and flying generals around the board like chess pieces. And now, confound it, I'm going to be a dashing combat leader at last. You may smoke if you like."

Kramer obediently lit up.

"Dan Medway," said the general, "wants me to start from scratch, build up a striking force and hit the Asian mainland across the Bering Strait."

Kramer was horrified twice—first by the reference to The Supreme Commander as "Dan" and second by the fact that he, a lieutenant, was being told about high strategy.

"Relax," the general said. "You're going to be my aide."

Kramer was horrified again. The general grinned.

"Your card popped out of the machinery," he said, and that was all there was to say about it, "and so you're going to be a highly privileged character and everybody will detest you. That's the way it is with aides. You'll know everything I know. And vice versa; that's the important part. You'll run errands for me, do investigations, serve as hatchet man, see that my pajamas are pressed without starch and make coffee the way I like

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it—coarse grind, brought to the boil for just a moment in an old-fashioned coffeepot. Actually what you'll do is what I want you to do from day to day. For these privileges you get to wear a blue *fourragére* around your left shoulder which marks you as a man not to be trifled with by colonels, brigadiers or MPs. That's the way it is with aides. And, I don't know if you have any outside interests, women or chess or drinking. The machinery didn't mention any. But you'll have to give them up if you do."

"Yes, sir," said Kramer. And it seemed wildly possible that he might never touch pencil to puzzle again. With something to *do*—

"We're Operation Ripsaw," said the general. "So far, that's me, Margaret out there in the office and you. In addition to other duties, you'll keep a diary of Ripsaw, by the way, and I want you to have a summary with you at all times in case I need it. Now call in Margaret, make a pot of coffee; there's a little stove thing in the washroom there, and I'll start putting together my general staff."

It started as small and as quietly as that.

II

It was a week before Kramer got back to the 561st long enough to pick up his possessions, and then he left the stacks of newspapers and magazines where they lay, puzzles and all. No time. The first person to hate him was Margaret, the motherly major. For all her rank over him, she was a secretary and he was an aide with a *fourragére* who had the general's willing ear. She began a policy of nonresistance that was non-cooperation, too; she would not deliberately obstruct him, but she would allow him to poke through the files for ten minutes before volunteering the information that the folder he wanted was already on the general's desk. This interfered with the smooth performance of Kramer's duties, and, of course, the general spotted it at once.

"It's nothing," said Kramer when the general called him on it. "I don't like to say anything."

"Go on," General Grote urged. "You're not a soldier any more; you're a rat."

"I think I can handle it, sir."

The general motioned silently to the coffeepot and waited while Kramer fixed him a cup, two sugars, no cream. He said: "Tell me everything, always. All the dirty rumors about inefficiency and favoritism. Your suspicions and hunches. Anybody that gets in your way—or more important, in mine. In the underworld they shoot stool pigeons, but here we give them blue cords for their shoulders. Do you understand?"

Kramer did. He did not ask the general to intercede with the motherly major, or transfer her; but he did handle it himself. He discovered it was very easy. He simply threatened to have her sent to Narvik.

With the others it was easier. Margaret had resented him because she was senior in Operation Ripsaw to

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him, but as the others were sucked in they found him there already. Instead of resentment, their attitude toward him was purely fear.

The next people to hate him were the aides of Grote's general staff because he was a wild card in the deck. The five members of the staff—Chief, Personnel, Intelligence, Plans & Training and Operations—proceeded with their orderly, systematic jobs day by day, building Ripsaw . . . until the inevitable moment when Kramer would breeze in with, "Fine job, but the general suggests —" and the unhorsing of many assumptions, and the undoing of many days' work. That was his job also. He was a bird of ill omen, a coiled snake in fair grass, a hired killer and a professional betrayer of confidences—though it was not long before there were no confidences to betray, except from an occasional young, new officer who hadn't learned his way around, and those not worth betraying. That, as the general had said, was the way it was with aides. Kramer wondered sometimes if he liked what he was doing, or liked himself for doing it. But he never carried the thought through. No time.

Troops completed basic training or were redeployed from rest areas and entrained, emplaned, embussed or embarked for the scattered staging areas of Ripsaw. Great forty-wheeled trucks bore nuclear cannon up the Alcan Highway at a snail's pace. Air groups and missile sections launched on training exercises over Canadian wasteland that closely resembled tundra, with grid maps that bore names like Maina Pylgin and Kamenskoe. Yet these were not Ripsaw, not yet, only the separate tools that Ripsaw would some day pick up and use.

Ripsaw itself moved to Wichita and a base of its own when its headquarters staff swelled to fifteen hundred men and women. Most of them hated Kramer.

It was never perfectly clear to Kramer what his boss had to do with the show. Kramer made his coffee, carried his briefcase, locked and unlocked his files, delivered to him those destructive tales and delivered for him those devastating suggestions, but never understood just why there had to be a Commanding General of Ripsaw.

The time they went to Washington to argue an allocation of seventy rather than sixty armored divisions for Ripsaw, for instance, General Gorte just sat, smiled and smoked his pipe. It was his chief of staff, the young and brilliant Major general Cartmill, who passionately argued the case before D. Beauregard Medway, though when Grote addressed his superior it still was as "Dan." (They did get the ten extra divisions, of course.)

Back in Wichita, it was Cartmill who toiled around the clock co-ordinating. A security lid was clamped down early in the game. The fifteen hundred men and women in the Wichita camp stayed in the Wichita camp. Commerce with the outside world, except via coded messages to

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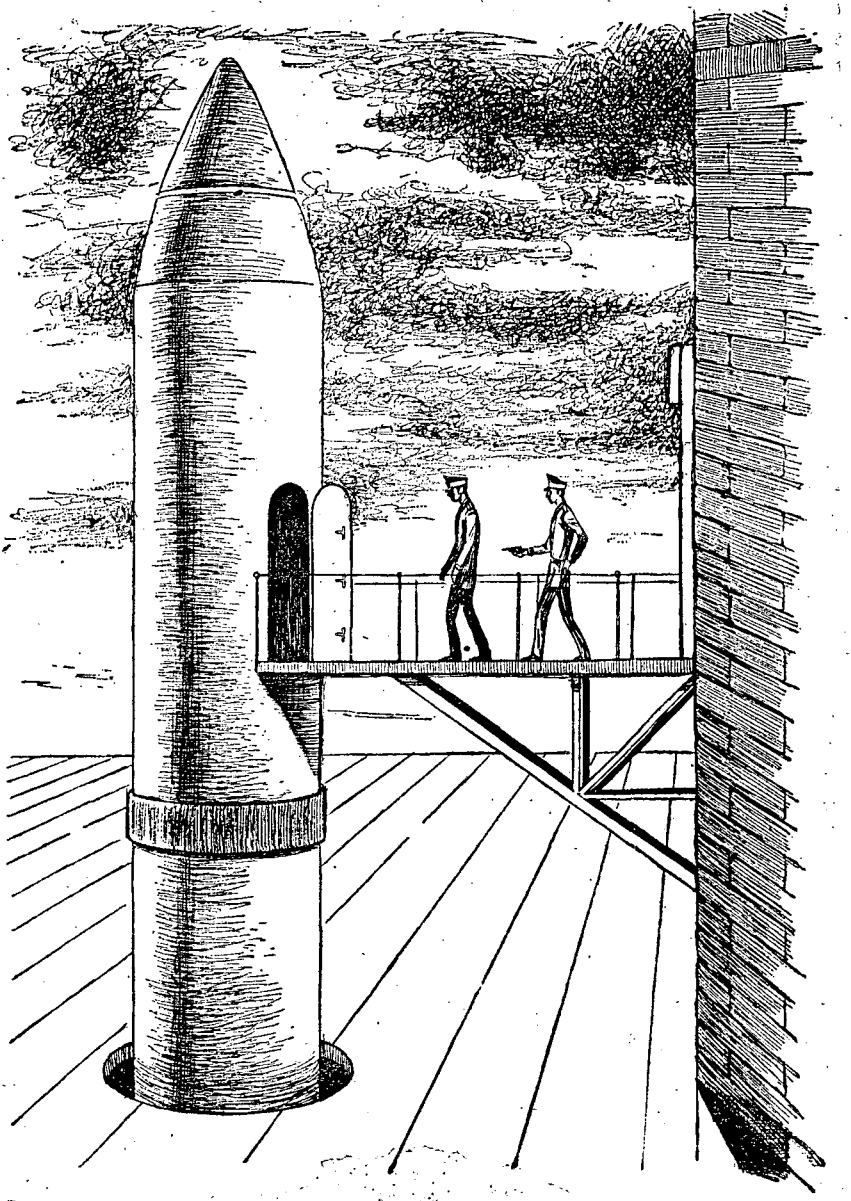

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other elements of Ripsaw, was a capital offense—as three privates learned the hard way. But through those coded channels Cartmill reached out to every area of the North American —and Allied—world.

Personnel scoured the globe for human components that might be fitted into Ripsaw. Intelligence gathered information about that track of Siberia which they were to invade, and the waters they were to cross. Plans & Training slaved at methods of effecting the crossing and invasion efficiently, with the least—or at any rate the optimum least, consistent with requirements of speed, security and so on—losses in men and materiel. Operations studied and restudied the various ways the crossing and invasion might go right or wrong, and how a good turn of fortune could be exploited, a bad turn minimized. General Cartmill was in constant touch with all of them, his fingers on every cord in the web. So was John Kramer.

Grote ambled about all this with an air of pleased surprise.

Kramer discovered one day that there had been books written about his boss—not best-sellers with titles like "'Bloody Larry' Grote," "Sword of Freedom," but thick, gray mimeographed staff documents, in Chinese and Russian, for top-level circulation among yute commanders. He surprised Grote reading one of them—in Chinese.

The general was not embarrassed. "Just refreshing my memory of what the yutes think I'm like so I can cross them up by doing something different. Listen: 'Characteristic of this officer's philosophy of attack is varied tactics. Reference his lecture, *Lee's 1862 Campaigns,* delivered at Fort Leavenworth Command & General Staff School, attached. Opposing commanders should not expect a force under him to'—Hm-m-m. *Tsueng,* water radical—'press the advance the same way twice.' Now all I have to do is make sure we attack by the book, like Grant instead of Lee, slug it out without any brilliant variations. See how easy it is, John? How's the message center?"

Kramer had been snooping around the message center at Grote's request. It was a matter of feeding out cigarettes and smiles in return for an occasional incautious word or a hint; gumshoe work. The message center was an underground complex of encoders, decoders, transmitters, receivers and switchboards. It was staffed by a Signal Corps WAC battalion in three shifts around the clock. The girls were worked hard—though a battalion should have been enough for the job. Messages went from and to the message center linking the Wichita brain with those seventy divisions training now from Capetown to Manitoba, a carrier task force conducting exercises in the Antarctic, a fleet of landing craft growing every day on the Gulf of California. The average time-lag between receipt of messages and delivery to the Wichita personnel at destination was 12.25 minutes. The average number of erroneous transmis-

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sions detected per day was three. Both figures General Grote considered intolerable.

"It's Colonel Bucknell who's lousing it up, general. She's trying too hard. No give. Physical training twice a day, for instance, and a very hard policy on excuses. A stern attitude's filtered down from her to the detachments. Everybody's chewing out subordinates to keep themselves covered. The working girls call Bucknell 'the monster.' Their feeling is the Army's impossible to please, so what the hell."

"Relieve her," Grote said amiably. "Make her mess officer; Ripsaw chow's rotten anyway." He went back to his Chinese text.

And suddenly it all began to seem as if it really might some day rise and strike out across the Strait. From Lieutenant Kramer's Ripsaw Diary:

> At AM staff meeting CG RIPSAW xmitted order CG NAAARMY designating RIPSAW D day 15 May 1986. Gen CARTMILL observed this date allowed 45 days to form troops in final staging areas assuming RIPSAW could be staged in 10 days. CG RIPSAW stated that a 10-day staging seemed feasible. Staff concurred. CG RIPSAW so ordered. At 1357 hours CG NAAARMY concurrence received.
>
> They were on the way.

As the days grew shorter Grote seemed to have less and less to do, and curiously so did Kramer. He had not expected this. He had been aide-de-camp to the general for nearly a year now, and he fretted when he could find no fresh treason to bring to the general's ears. He redoubled his prowling tours of the kitchens, the BOQ, the motor pools, the message center, but not even the guard mounts or the shine on the shoes of the soldiers at Retreat parade was in any way at fault. Kramer could only imagine that he was missing things. It did not occur to him that, as at last they should be, the affairs of Ripsaw had gathered enough speed to keep them straight and clean, until the general called him in one night and ordered him to pack. Grote put on his spectacles and looked over them at Kramer. "D plus five," he said, "assuming all goes well, we're moving this headquarters to Kiska. I want you to take a look-see. Arrange a plane. You can leave tomorrow."

It was, Kramer realized that night as he undressed, Just Something to Do. Evidently the hard part of his job was at an end. It was now only a question of fighting the battle, and for that the field commanders were much more important than he. For the first time in many months he thought it would be nice to do a crossword puzzle, but instead fell asleep.

It was an hour before leaving the next day that Kramer met Ripsaw's "cover."

The "cover" was another lieutenant general, a bristling and wiry man named Clough, with a brilliant combat record staked out on his chest and

Continued on page 152

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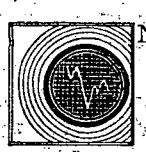
EDITORIAL

PIE IN THE SKY

The facts seem to indicate strongly that the people of the United States do not want Space . . . and do not want a successful space program! Certainly, as of now, we don't have one!



ON APRIL 12, 1961, the human race finally broke free of Earth; roaring up from a launching pad somewhere in the Soviet Union, Major Yuri Gagarin fulfilled the hopes of modern man, and went into a true space-flight orbit.

As a human being, I have every reason to be delighted; as an American I have every reason to be disgusted. Not, let it be clearly understood, with the Russians; I'm delighted indeed that they did a fine job on a problem that had to be licked. I'm thoroughly disgusted with the American people.

All Wide World Photos

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The highest hope of the American space program was to get a Mercury capsule into space and back successfully—with a man instead of a chimpanzee aboard. But a Mercury capsule was never intended to go into orbit.

It is not the fault of the United States Government, nor of "top-level brass" decisions; the situation quite clearly results from the fact that the United States has a truly representative government—and when a representative government represents a foolish people, it will be foolish. The American people are, as of this period of history, foolish—*i.e.*, characterized by folly in their attitudes.

There's that noble old sentiment, *"Vox populi; vox dei,"* which is, naturally, beloved by the people. "The voice of the people is the voice of the gods." Naturally the people like being deified . . . but men can't be deified; trying to do so destroys the meaning of the term "God."

There is plenty of evidence that the voice of the people today, in this

This is a drawing of the Farside vehicle which was successfully fired high above the Pacific. The rocket was launched from a balloon in the area over Eniwetok Island. The drawing shows how the rocket, fired directly through the apex of the balloon, rises as the first-stage rocket engine leaves it and the second-stage rocket takes over. The rocket left the balloon at 100,000 feet and rose 4,000 miles above the earth.

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country, is quite solidly determined that "We don't want space opened!"

Trying to get some sort of man-in-the-street reaction, I did some personal checking around. In the first days after Major Gagarin's flight, the majority of casual discussion of the subject in New York City, at least, concentrated on the proposition that it was a fake . . . that it hadn't really happened. In other words, they were grasping eagerly at any wisp of possibility that their dearest hopes were realized—that Space was *not* opened.

When the atomic bomb went off over Hiroshima, a good many science-fictioneers—myself among them—felt that, at last, people would realize that science fiction is *not* fantasy, that it is a pretty fairly accurate effort to predict the developments of human history. We can't predict the stock market—which would win us devoted followings!—but we can predict the broad trends. I couldn't say, in 1947, when, on what date, and how much, IBM stock was going to rise . . . but I could, and did say it would, inevitably, rise over the next two decades . . . because it was perfectly obvious that automation and computer control was the next major development in industry.

But the fact science-fiction magazines encountered after Hiroshima was that there was *less* interest in science fiction, not more.

After Sputnik I proved that space-flight was a real—not a fantasy!—possibility, again we felt that science fiction, having proved its ability to predict, would be accepted more widely.

The fact was that many science-fiction magazines were forced to suspend publication.

That wasn't a vote of "no confidence" on the part of the American people; it was a solid vote of "Shut up! I don't want to hear about it! Maybe it'll go away!"

Immediately after the Spaceship *Vostok* carried Major Gagarin around the Earth, the major interest of those New Yorkers who discussed it at all was "Maybe it's a fake! Maybe it never happened at all! Tell me it isn't true!" To *hope* it is a hoax is dangerous folly indeed.

The Government of the United States—considered as a true, popular democracy—has not failed the American people. It has not done precisely what they wanted not-done. It has not made any genuine effort to open space for mankind.

Look at it this way: As of this decade, the United States still is the world power having the greatest industrial capacity, the greatest gross national product, the greatest number of scientists, engineers, technicians, and skilled mechanics. We have by far the greatest established and operating system of research laboratories,

In flight over Eniwetok Atoll in the Pacific and on its way to a launching altitude of 100,000 feet, the Air Force's Farside rocket rises, suspended beneath its carrier balloon. Approximate cost per vehicle $20,000.00.

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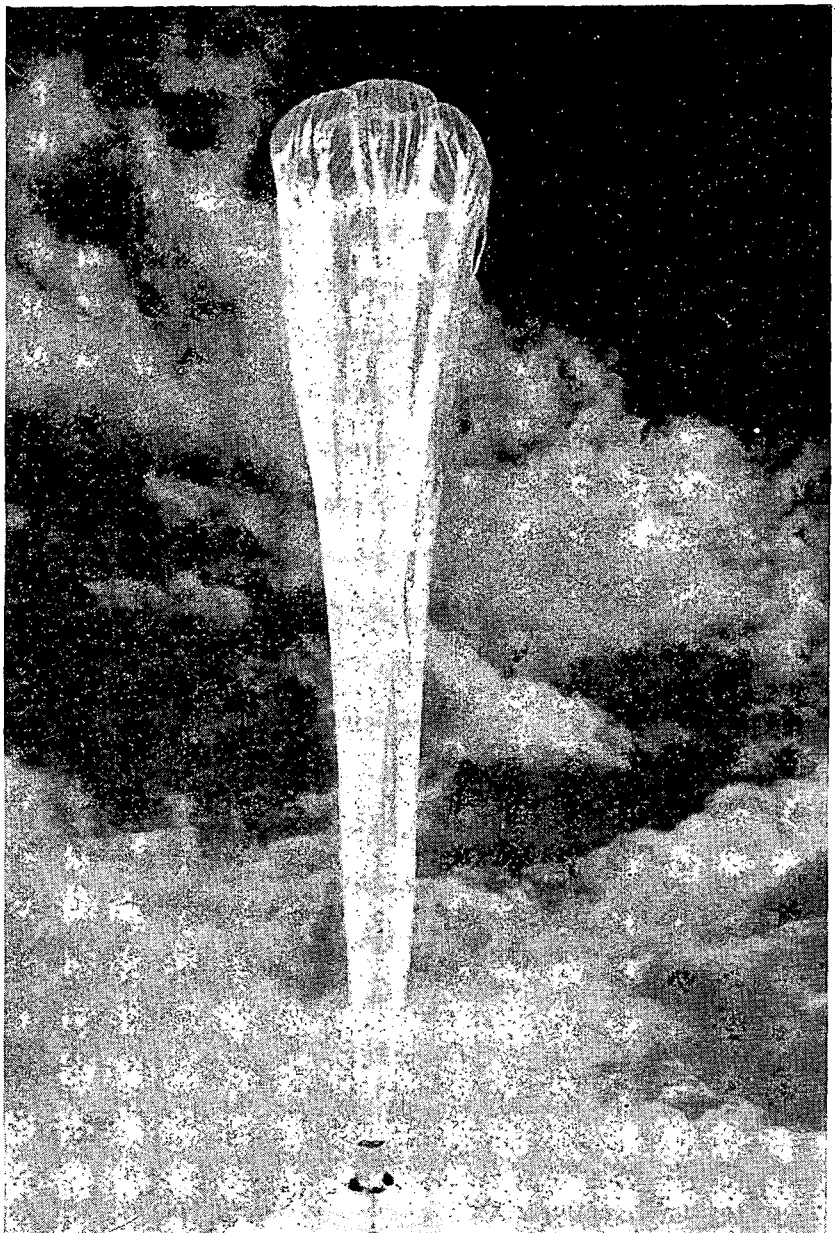

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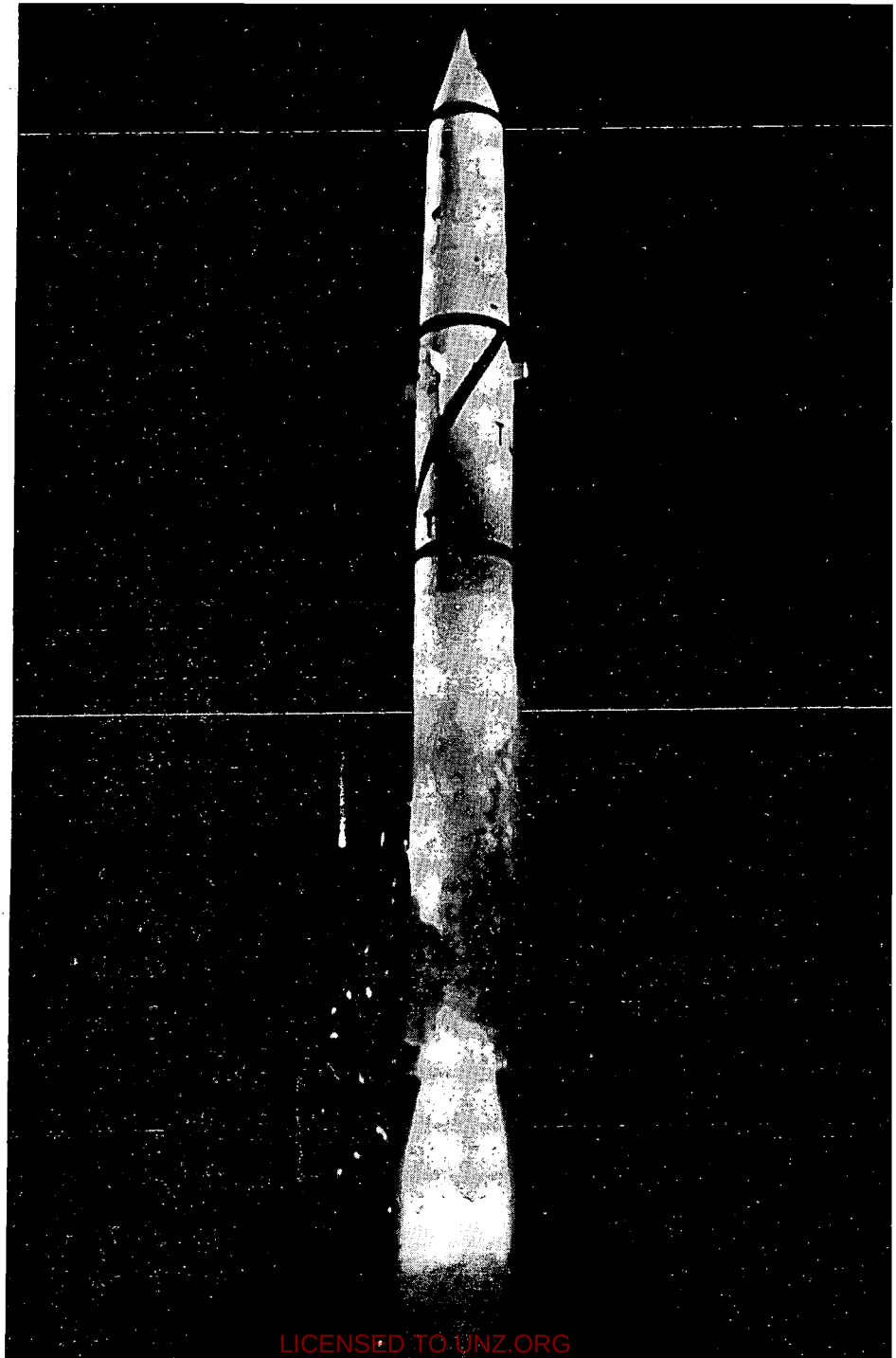

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universities, and engineering proving grounds. As of now, Russia is a third-rate technical power.

But Russia has beaten us, hands down, twice running, in the effort to open Space!

We've got more, and better of everything it takes to do the job, and do it up brown.

And Russia has consistently outstripped us in applied technology—precisely the area that *used to be* America's own, vestpocket preserve!

It is *not* true that Russia has done a fantastically brilliant piece of work; they've done a Grade-A #1 job, pushed through with sound skill, and honest effort.

What *is* true is that the United States has done a job so startlingly lousy that it *couldn't* have been that bad without deliberate—if subconscious!—intent to fail.

If a two-hundred-pound six-foot adult man struggles to lift a sand bag from the floor, and barely gets one end up, and then a fourteen-year-old, one hundred twenty-five pound kid comes along, heaves, and walks off with it, it's not necessary to say that the kid is miraculously powerful. The man wasn't really trying.

Now a person with acute claustrophobia is, physically, perfectly able to get into an elevator. It's absolutely true that he could if he wanted to. But it's equally absolutely true that he's completely incapable of wanting to; he *can't* want to.

The United States could have had a man in space in 1951 instead of 1961, if we'd really wanted to—wanted to the way our pioneer grandfathers wanted to do things. With the available industrial capacity, and the available capital, the available technical man power, we could have crash-programmed a rocket research through.

The United States did not do so, because we have a representative government, and it represents their foibles, follies and delusions. The deified Common Man has, never in all history, had the slightest desire for really new, breakthrough advances. He hates "eggheads," because they change the Traditional Order of Things. Sure, he wants more chrome on his automobile, he wants softer foam rubber in the seats, and he wants great Social Improvements like cradle-to-grave security—which the ancient ritual-taboo tribes had two thousand years ago.

But he didn't want automobiles originally, really. Not as an idea, because they meant a complete upset in his way of life. Well . . . *he* wanted an automobile, but he didn't like the idea of just everybody having them.

There are lots of beautiful demonstrations of the fact that the genuinely popular-democratic-representative government of the United States did *not* want Space.

First, there has been a great deal of

The Redstone. The most reliable and successful of the liquid fuel rockets. This is the unit used in boosting the Mercury capsule into space. Approximate cost per vehicle $500,000.00.

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worried discussion about whether or not there is a "missile gap"—but none about whether there is a "space gap." The missile problem seems important to the American voter—a missile is a practical, useful thing that he can readily understand has real value.

His interest in space is so near zero, however, that his major reaction to the space gap is a sort of "Uh? So what?"

Second, the American government was caught exceedingly flat-footed—completely shocked—by the tremendous world-wide reaction to Russia's Sputnik I. The American people were quite genuinely uninterested in space—it didn't seem important to them. And our government made the egregious error of assuming that all people everywhere felt that space was unimportant.

In consequence, the Vanguard program wasn't given any real push—we weren't really interested. And no effort at all was made to keep track of how the Russians were making out with their space program.

The original attitude of most American officials when Sputnik I went up was a sort of, "Oh . . . they did, huh? That's nice."

Americans, as of 1947, were sitting on top of the world; the thing they wanted most of all possible things was nothing new. The development of history had at last reached its long-sought ideal and perfect place; history should stop happening.

There's a missile gap, because Americans didn't *want* missiles to happen. No more than we wanted Russia to become an atomic power. Those were highly unwelcome changes in the at-last-perfect situation.

Opening space was another change that wasn't wanted either . . . by Americans.

But 1947 was no perfect-ideal for Russia, Germany, England, France, Italy, and the entire roster of the rest of the United Nations, with the possible exception of Canada and Ireland. The rest of the world's people were most decidedly anxious for change—great changes.

Above all, Russia was anxious for change, of course.

In 1957, ten years later, American officialdom did not appreciate the tenor of world thought, and did not appreciate that to most of Mankind the idea of breaking the ancient chains that held us to Earth was a great, noble, and uplifting achievement. They *wanted* that high-soaring symbol of a new, wider, different, better future . . .

The psychological impact on the world was far greater than our government—misled by the "divine voice" of our people—had realized. They found, with shocking impact, that everyone *but* Americans were far from indifferent—everybody *but* Americans felt it was a magnificent triumph . . . and felt that America's failure to achieve it was a failure of ability-to-do.

It was not a failure of ability-to-do. The third item demonstrates that conclusively.

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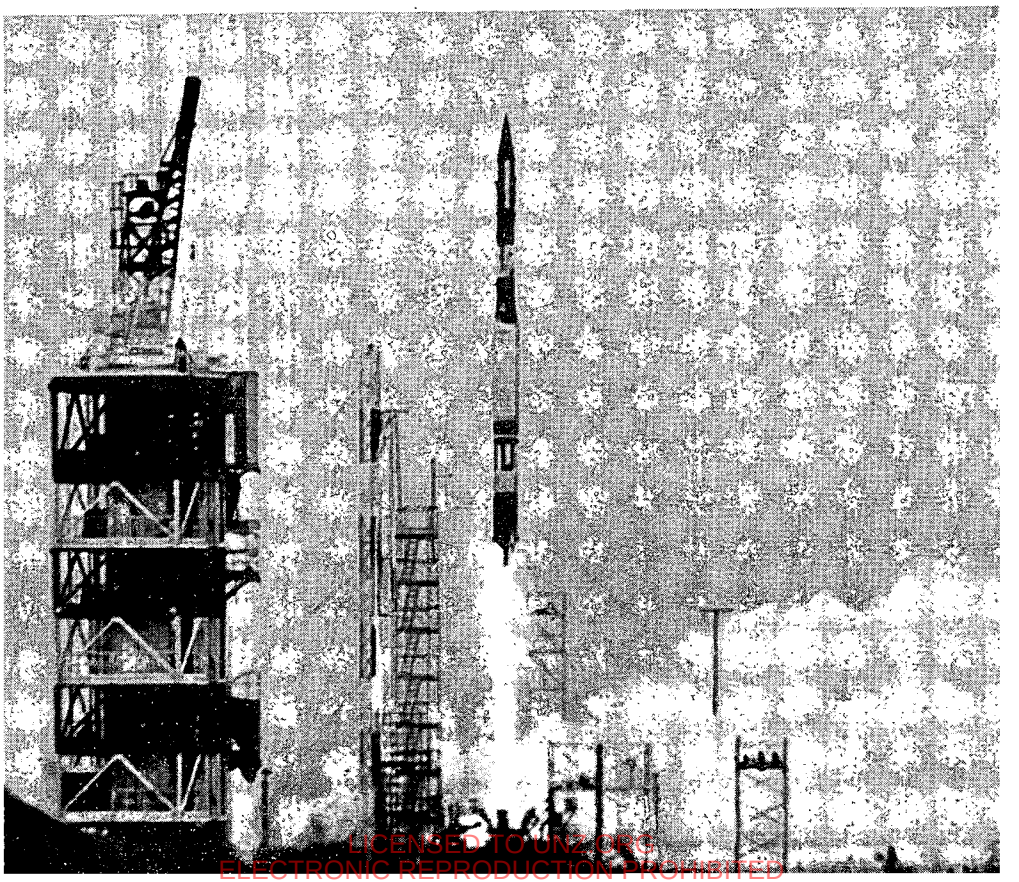
The first true space-probe to get more than a few hundred miles out from Earth (remember the WAC-Corporal-V-2 combination that went over two hundred miles out in 1949. It actually went farther into space than Major Gagarin—max altitude one hundred eighty-eight miles—but, of course, unlike the *Vostok,* did not orbit.) went more than two thousand miles out. It was launched *before* Sputnik I. It was the first of a brilliantly planned, and neatly executed series of instrumented space-probes. There were only six test-firings of the system, but the sixth reported back from a distance of four thousand miles.

The job was done by the United States—but in a sort of *subrosa,* let's-not-talk-about-it manner, and was very thoroughly squashed very quickly; primarily, I believe, because it was doing a brilliantly successful job, in a

The Vanguard. The much touted space satellite vehicle which was one of the most expensive failures in the United States Space Program. Approximate cost per vehicle $20,000,000.00.



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very neat and ingenious manner.

It was called Operation Farside; for a mere twenty thousand dollars, it was putting four-pound instrumented packages out four thousand miles after only five tries! (How many of the fabulous Vanguards flopped? How much did those over-publicized incompetents cost?)

Farside approached the problem in a neat, "elegant experiment" manner —instead of the currently-popular "sophisticated device" approach. "Sophisticated device" translates to "very complex and expensive," which makes them extremely popular with cost-plus industry contractors, governmental boondogglers, and people seeking to increase employment, whether useful or not.

Farside simply hung some off-the-shelf solid-fuel rockets under a cheap, plastic balloon, hoisted the rockets through the first twenty miles of dense atmosphere by making the atmosphere itself do the work, and then launched 'em straight up. With practically all the dense, high-resistance atmosphere already below the vehicle, and the toughest twenty miles of the gravity well already surmounted—they soared out beautifully into deep space. Some of the first evidences of the Van Allen radiation belts came back from the Farside instruments.

The research project was launched within the Air Force Office of Scientific Research, largely by Colonel William Davis. He had difficulties—one of them being that Defense Secretary Charles Wilson outspokenly objected to "shooting at the Moon," and almost completely squashed the project early in its career. In fact, on July 29, 1957 —note that date in relationship to the date just a few months later that Sputnik I went up!—the official Department of Defense and Air Force attitude was magnificently expressed in an order to all Commanders that "No statements can be made which might in any way cause the national news media to describe valid Air Force projects as efforts to 'fly to the Moon.'"

In other words the official attitude was that it was wrong, inappropriate, nonsensical, to even discuss trying for a Lunar probe—*in mid-1957!*

The miniscule budget that the Farside project had been working on was drastically cut; the government's attitude was such that it wasn't wanted. The project would have been cancelled out entirely at that point—if private industry hadn't picked up the tab.

Aeroneutronics, Inc. had been the prime contractor for the job—and their project engineer, Dr. Joe Karsch, recognized the importance of space research. Aeroneutronics, Inc., is a Ford Motor Company subsidiary; the Ford Motor Company backed the Farside project, and, in fact, paid approximately two-thirds of the cost of making it possible for an American probe to be first in deep space.

The Farside project worked beautifully, when it was tested . . . but Colonel Davis, who had launched it was yanked from Eniwetok, where the

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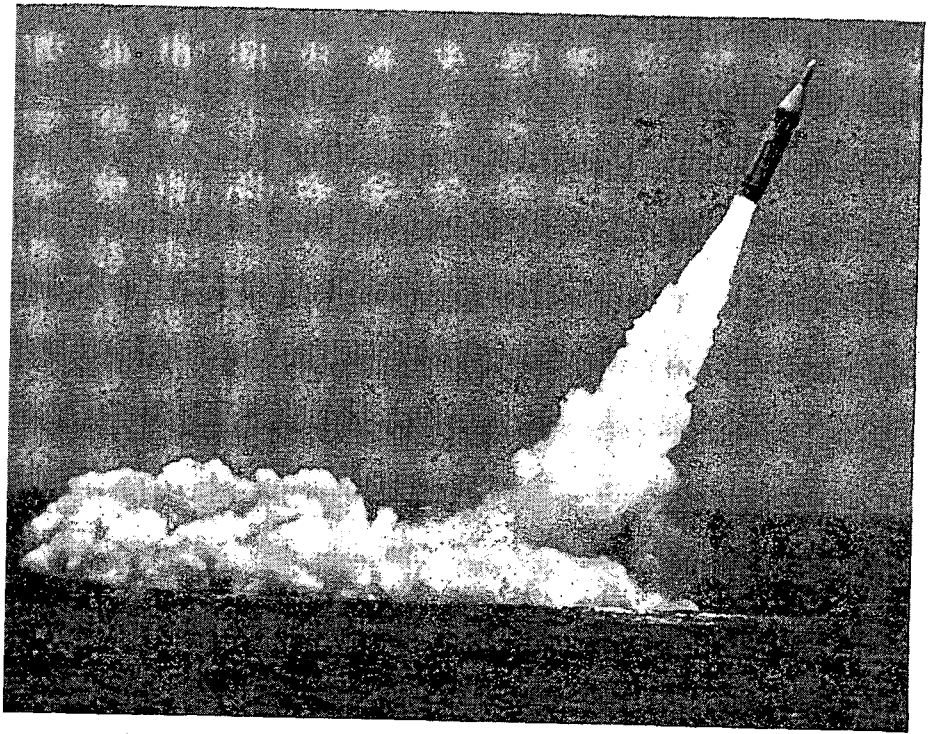

A Polaris Missile blasts skyward just after clearing the waves of the Atlantic. It was launched from the nuclear submarine *USS George Washington* fifty feet under the surface, and cruising thirty miles off Cape Canaveral. The missile came out about fifteen degrees off vertical and the guidance system is just beginning to correct here. The launch was completely successful. The Polaris is a solid fuel rocket which has been highly successful. Unlike most rocket programs Polaris solid fuel rockets were developed on time according to schedule. Approximate cost per vehicle $500,000.00

vehicles were launched, pulled off the project, and shipped to Dayton, Ohio, while another man—a completely competent scientist, but totally unfamiliar with the project's history and/or its status, was shoved into his place.

The original six vehicles were launched and tested . . . and then the whole program quietly died, and nothing more was done.

I have made, in past months, some remarks concerning the government's

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unwillingness to look at new potential breakthroughs; in this instance, the government didn't want to look at a developed and proven technique of deep-space probing that was cheap, quick, and effective—even after it had been tested and proven.

President Eisenhower, in his TV speech after the shock of Sputnik I's success, cited American achievements in space . . . and the only *space* achievement he was able to cite was Operation Farside's four-thousand-mile reach into space. Courtesy the Ford Motor Company, not the United States Government, which had moved to throttle it, and would have without the Ford Company's intervention. And if Ford hadn't done that, Eisenhower wouldn't have had one, single true space project to cite. (The nose cone hooraw had to do with success with nice, practical, useful things like ICBM's, that the American people can see some real use for—blowing up somebody else's cities.)

There's considerable reason to doubt that the Kennedy administration will do much better; we've still got a popular-democracy representational government, and the American people don't want space. Further, while an effort to form a Space Science Advisory Committee for the Kennedy campaign during the election was made . . . it was politely rejected by the Kennedy-Johnson group. They didn't want any, thank you.

Many times, there's a difference between what people *want* and what they *need*—but the voice of the people, the False Gods, will invariably be utterly certain of its Ultimate Wisdom, and demand what it *wants*.

In a representative popular democracy—it gets what it wants, until that government is in some manner changed. And changing administrations within that framework does not constitute a change.

As of 1947, the United States was sitting on top of the world, as the one effective world power; we had absolute military, economic, and political domination. We alone had the atomic bomb; we alone had a healthy, vigorously functioning industrial economy, undamaged by the war. We had Security.

The people of the United States, quite evidently, want to return to the Good Old Days of 1947—and if that can't be quite managed, they want to keep the world just as near the 1947-ideal as they can. And that was a period when Space wasn't open, and there were no ICBM's to worry about, and Russia didn't show signs of a great technology—so let's deny that any such things exist.

One of the "I don't want to believe it!" lines that's going around is that the Russian rocket success was all due to those German scientists they captured after the war.

Well, maybe . . . but two facts

The Atlas. First operational ICBM; good, but still unreliable. It is hoped to use the Atlas to launch a Mercury capsule into orbit. Approximate cost per vehicle $3,000,000.00.

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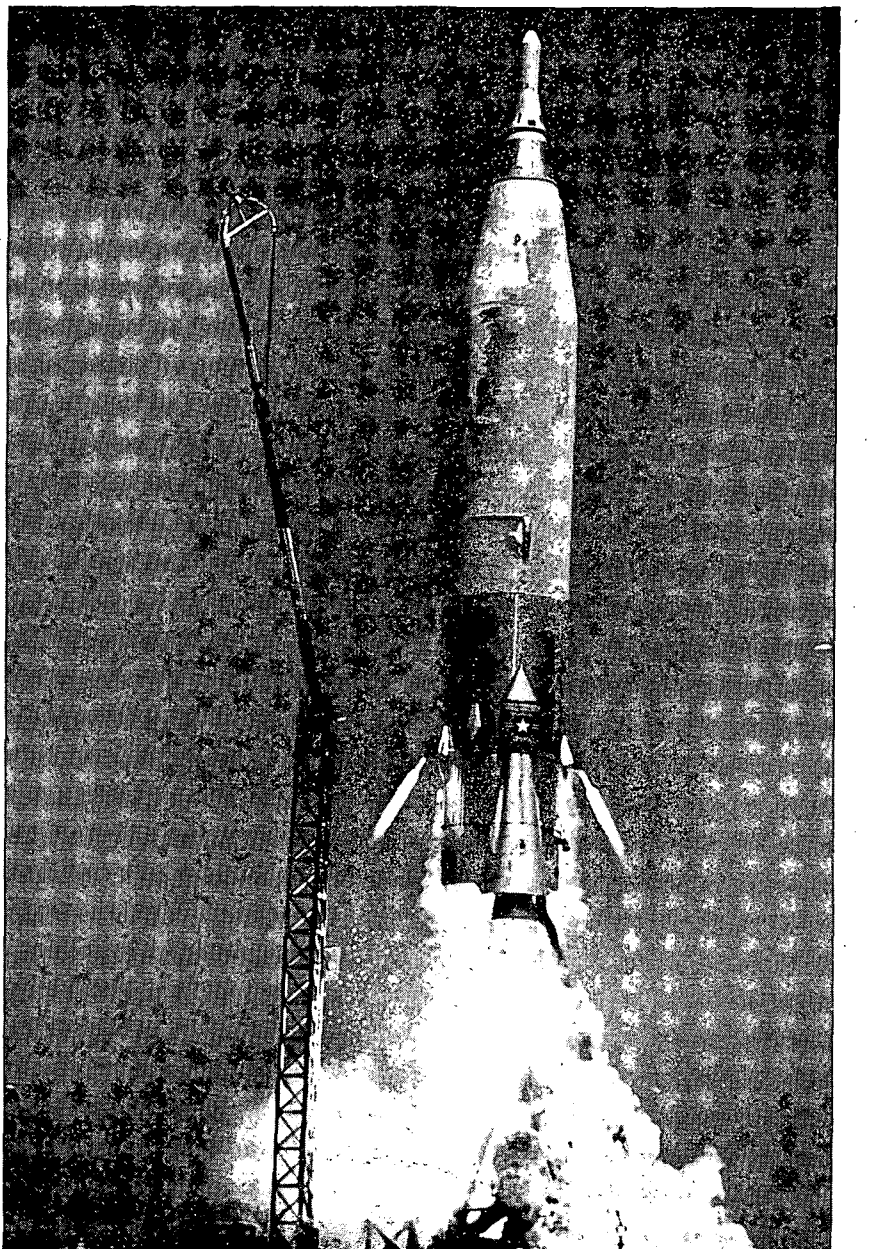

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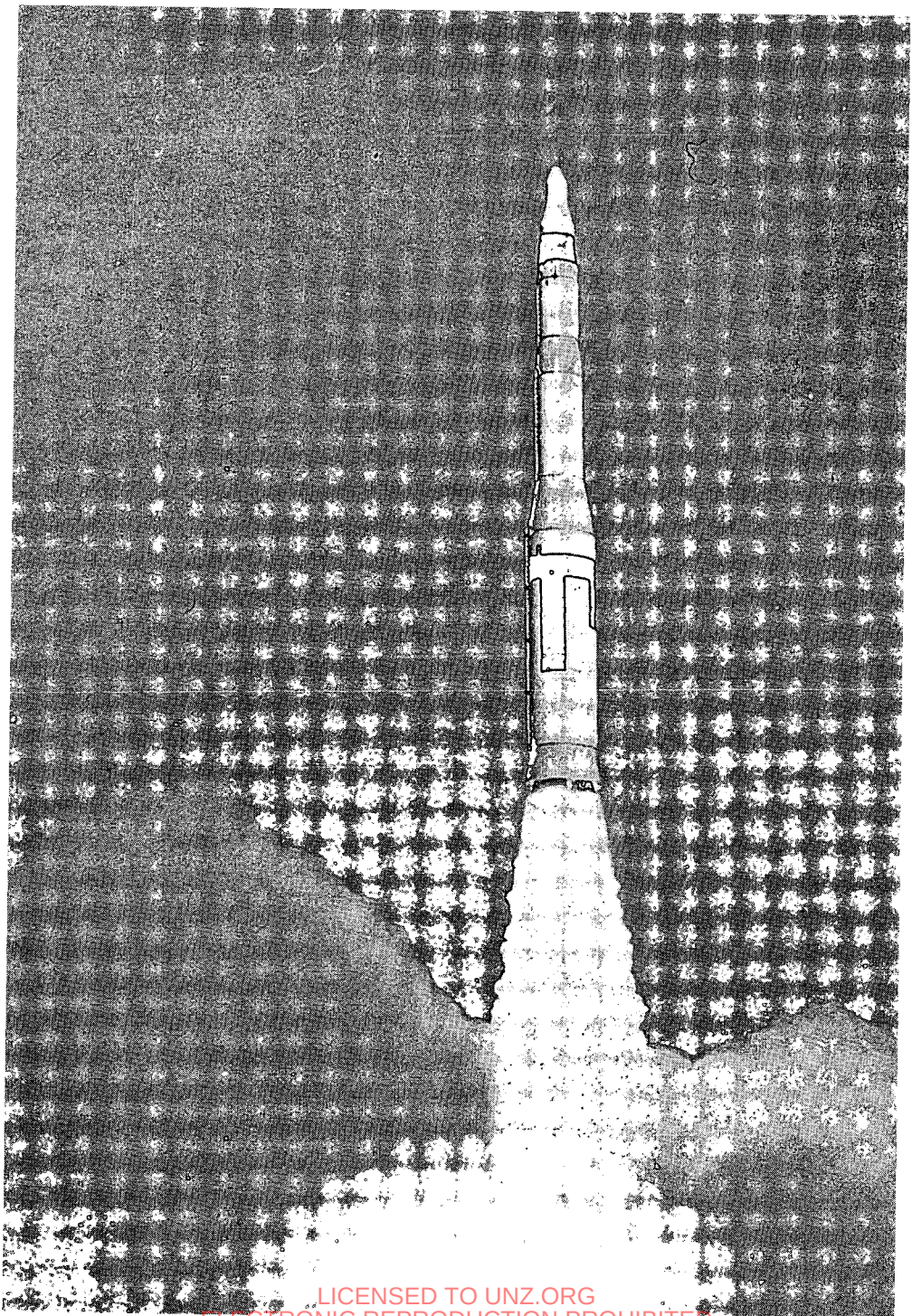

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might possibly have some bearing on reaching a judgment on that. *We* have the man who directed the German program of rocket research—Wernher von Braun. And while V-2's were spectacular . . . does anybody remember what ground up the Nazi divisions on the Eastern front? Russian *rocket* barrages, Russian *rocket* artillery. And, by the way, the German's 88mm rifles were justly feared . . . but the Americans developed the bazooka—the rocket gadget that knocked out tanks.

We are, today, engaged in a great Technological War; it's been called a "Cold War," but it is, in practical fact, a technological war . . . and we've been retreating at an unbelievable rate! Technological war necessarily combines, and interacts with, all the other forms of warfare: the military warfare is a threat, rather than an actuality, during a technological war—but the power of its threat varies with technological successes and failures.

Economic warfare, of course, is directly tied to technological warfare; a major technological breakthrough can drastically alter the strategic position at the economic level.

The Minuteman. First solid fuel ICBM. Its solid fuel advantage is that it can stand in readiness for months and be launched in minutes unlike the liquid fuel rockets which have to be fueled just before take-off. Approximate cost per vehicle $1,000,000.00.

Psychological warfare is crucial—that's what's been called "the Battle for Men's Minds." And that, of course, swings widely whenever there's a swing in technological success. The United States suffered a tremendous defeat in psychological warfare when Sputnik I went up—far more drastic than we needed to, because of a simple fact. *We* don't want space, so therefore naturally, we know the rest of the world isn't really interested in Space, so putting up a satellite isn't going to be important, so . . .

But the rest of the world, the part of the world that didn't consider itself sitting fat and happy on top, *was* interested in Space . . . and did recognize Sputnik I as a breakthrough.

Now one of the characteristics of a technological "front" is that the one who gets there first immediately wins the psychological warfare victory—automatically. Major Gagarin has now made it absolutely, and forever impossible to be the first man into space; that psychological warfare victory is absolute and irreversible.

Even more important, the breakthrough having been achieved, the one who did it starts from that point *and goes on,* using that breakthrough to lift himself farther. And in any field of science, once it is opened, progress is at first highly exponential. Every achievement immediately gives a major advantage to the next-following achievement.

The runner-up is now forced to match the established achievement—whether that was his desire or not!—

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and must commit research time, money and manpower to the slow, hard-work side of the breakthrough. He *falls more and more behind*, because the leader is on a down-hill pull, while he's still struggling to get up. The leader is using the advantages of new knowledge his breakthrough earned him, and can run faster.

One simple example as applied to the present Space front of the technological war: Our scientists dearly love the "sophisticated instruments" they send up—but only someone who is instrument-blinded will overlook the fact that far, far and away the most highly developed data-reducing computer system ever conceived is the human being. One man, making one orbital trip around the Earth, has solved more problems than all the space-probe gadgets and chimpanzee-carrying rockets we've sent up. One simple question that's been bothering people for a long time has now been settled completely, and very quickly and easily. Can a man function adequately in no-gravity? Major Gagarin brought back the answer that all our monkey-carrying capsules only hinted at.

The *Vostok* was completely automatic; Major Gagarin didn't fly it, but simply rode it. One extremely good reason was that, until that question was answered, it was insane to send a man up there and expect him to fly the ship. Now the Russians know what a man can and cannot be expected to do when in no-gravity; we don't. (Is there any reason why the Russian story, in that particular, should be true? That bit of knowledge was hard won, and can be of major value in a technological war. They worked for and earned it; we haven't. Why should they give it away?) Every advance in a technological war gives you the advantage of know-how that your enemy has to struggle for.

Again: a true breakthrough may involve an unexpected concept—in fact usually does—which means that sheer mass-application of technical brainpower can't get there. No amount of logical research can equal one true flash of ingenuity. Note that while, in the last century, Europe had all the trained scientists, universities, industrial machinery, and capital . . . it was America that produced technological breakthroughs in rapid-fire order, and from totally unexpected sources. A portrait-painter developed the telegraph; a teacher of the deaf invented the telephone. A school-teacher invented mass production with interchangeable units, and an uneducated ex-newsboy invented electric lights, and about half the basic concepts necessary for electric power distribution.

Not one of those things had yielded to the massive intellects of Europe's trained scientists. They tried . . . in a half-hearted sort of way, because, after all, Europe was sitting on top of the whole wide world, and what European wanted to really upset things?

Now it has been quite widely acknowledged that much of Russia's

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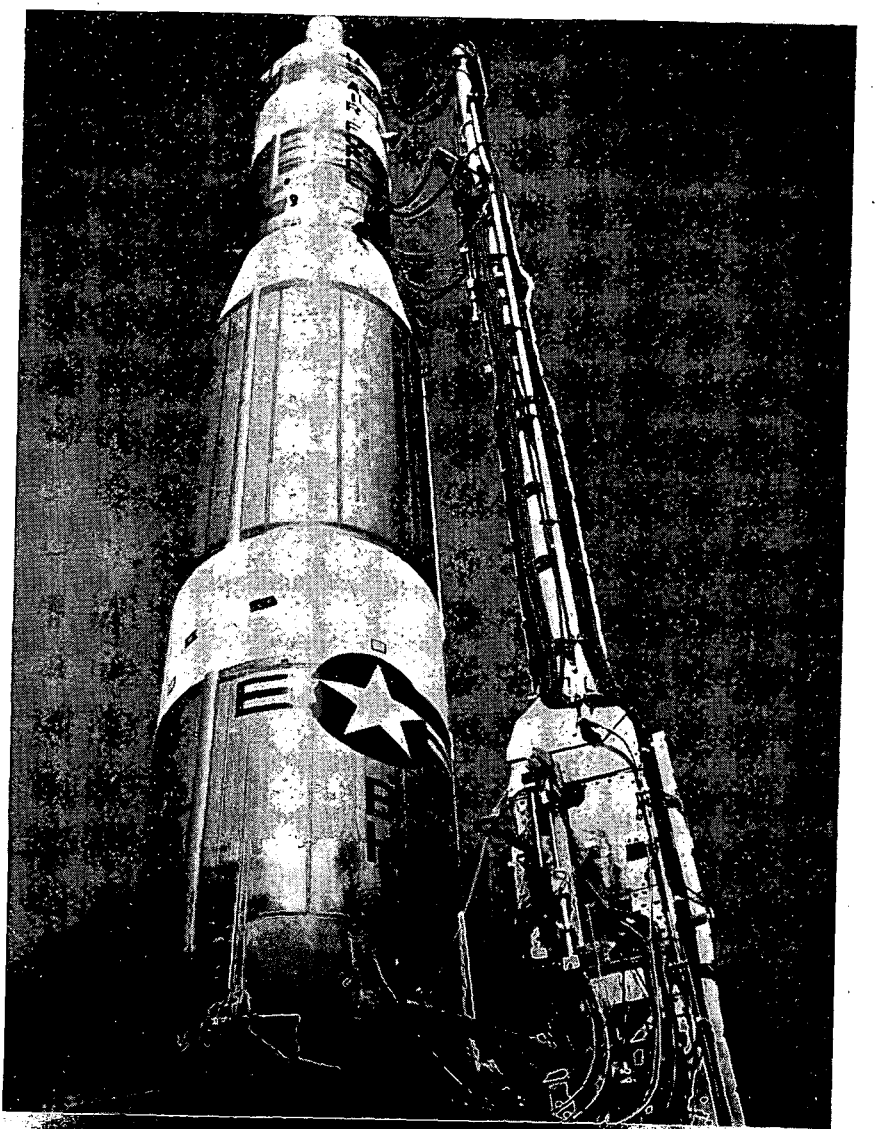
The Titan. Latest operational ICBM being fueled on the launching pad in preparation for take-off. Approximate cost per vehicle $3,500,000.00.



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success in space has been due to one single factor; they've got an eight hundred thousand pound thrust rocket engine, and we haven't. That one technological breakthrough has given them two highly important psychological victories, and an unknown number of consequent technical advantages. (How do we know what things they've learned with their immensely massive satellites? Our little ones have taught us a lot. And note that we can well afford to be self-righteously public about our findings; obviously the Russians can, if they wish, put up any equipment we can . . . and then some.)

They have now put up the ultimate piece of equipment; a living man. A human eye-brain combination can, in a matter of half a second, perceive and interpret a complex pattern that no known technical equipment yet devised could report on. A thing so simple as an Ishihara color-vision test card can defeat any of the space-probe equipment we've yet sent up! And this lovely nonsense about "instruments are far more reliable than human observers"! Instruments are the ultimate in bigots; they observe only what they intend to observe, and absolutely ignore anything else. They are reliable—as any absolute bigot is. You can be perfectly sure that he will report only what he wants to accept . . . no matter what the evidence may be.

I have read, with considerable irritation, a learned colloquium on the great advantage of sending an instrumented probe, rather than a manned vehicle, to explore the planets. The advantages of not having to ship food, water, oxygen, et cetera, and, even more, the advantages of accurate instrument recordings. Man, it seems, really isn't much good . . .

Particularly it will appear that way when you haven't got what it takes to put a man in Space . . . and the other side has.

But the sheer folly of talking about an instrumented probe being better than a manned vehicle for exploring Mars . . . when our Venus probe transmitter conked out completely after about three transmissions! Component failure.

Any Systems Engineering man can explain the problem. Given ten thousand components, each with a reliability-life of ten years, you'll have one chance in one thousand that the thing will function after one year. It takes about eighteen months to orbit out to Mars; to have a fifty-fifty chance that the instrumented probe would transmit once it got there, you need a component reliability life of around one million years. Anybody got any million-year guarantee vacuum tubes?

Besides which, half their sophisticated space devices have been going haywire in some ultra-sophisticated ways. Like metal boiling away from where they want it, and recondensing somewhere else that they definitely don't want it. You know how they aluminize mirrors? Heat some aluminum in a vacuum chamber, with the mirror blank cold and nearby; the aluminum sublimes and recondenses on the mirror blank. They've been

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having fun with their lovely sophisticated printed circuits subliming and recondensing in a new and very original "circuit." Usually a much shorter circuit, naturally.

It's true that cosmic ray and Van Allen radiation may be hard on men; we don't know. But what those radiations do to plastics is very interesting indeed. It'll make polyethylene as brittle as glass.

So, now, the Russians have parlayed their original technological breakthrough—the eight-hundred-thousand-pound thrust rocket engine—into two immense psychological victories in the War for Men's Minds, and into a second technological breakthrough. They can put a human observer up there.

(Note that even if the Mercury project were a one hundred per cent success, we wouldn't be able to match the advantage of an orbiting observer.)

Once one technological breakthrough is achieved—you have a massive advantage in getting at the next.

When you're behind, as the United States is, an entirely different tactic is required. We do not dare seek to "catch up" with the Russians. Project Saturn, the million-pound-plus liquid-fuel-rocket engine, should be dropped right now; it's an effort to catch up with something Russia achieved several years ago. That's inherently a false maneuver in a technological war. So long as you keep trying to overtake your enemy, you are committed to second place. If you keep seeking to neutralize his advantages, you're always busy rushing frantically to cover the new place he's broken through . . . and never achieving anything yourself.

One obvious way for the United States to get somewhere is to leapfrog entirely beyond the Russian position. And that will *not* mean doing what Russia is doing, and doing it better—it will mean doing something Russia is *not* doing.

If we could come up with a true antigravity device, for example, all the Russian work in rocket drives would be rendered valueless; it would be completely unnecessary for us, or anyone else, to duplicate the Russian achievement.

A leap-frog play in technological warfare means doing something your opponent has *not* done, but which makes what he has done unnecessary. Russia, for example, has not strung the vast network of telephone wires and cables that the United States has; coming along later, the Russians simply installed microwave relay links, completely by-passing the need for the earlier system of wired cables. The Russians never developed the steam-engine powered factories that the United States did during the latter nineteenth century; they went directly to electric power.

Operation Farside didn't use a gigantic booster to reach deep space; it by-passed the difficulty with a gigantic, cheap, balloon.

They lovely liquid-fuel rocket engines that we've been working on—

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the Russians are ahead of us—are immensely complex, and have the inevitable System Failures problems. The failure of one one-dollar valve-seat causes the destruction of a multi-million dollar rocket, and a multi-multi-million dollar loss in the psychological war. (Remember Vanguard dumping its grapefruit in the sea immediately after launching?)

Most of the problems in the big rockets has been complexity and failure of components.

Farside used solid-fuel propellants. They're not so popular with Big Science or Big Business generally, because they're so much simpler and not "sophisticated." They're made, essentially, by pouring a rubbery sort of glop into a piece of sewer pipe, punching a hole in the glop, and then lighting it off when you're ready. No spectacular countdown. No fuming of lox. No shrieking turbo-pumps . . .

Farside got its package four thousand miles out into space with the first little test-series—a damn sight better record than the liquid fuel sooper-doopers have shown.

The only missile programs that have come up with the goods on schedule have been Polaris and Minuteman . . . the solid-fuel rockets.

We're way ahead of Russia on solid-fuel propellant rockets. Thiokol, the major supplier of solid-fuel propellants, has said that, given the go-ahead, they could get a million-pound-plus rocket off the ground before the end of 1961—far ahead of the most hopeful date for Saturn. (If Saturn does work successfully.)

By doing an all-out job of developing what Russia has *not* developed, we'd be in a position to leap-frog their work—by-pass completely all their technological advantage in liquid-fuel development.

And there's absolutely nothing to prevent our development of a super-Farside approach. It sounds real oh-gee-whiz when you talk about "a million pounds"; it boils down to five hundred tons. A cluster of cheap polyethylene balloons could lift many tons the first twenty miles—and of course a five-hundred-ton thrust rocket doesn't weigh five hundred tons.

The lighter-than-air ships were not successful—but remember that their problem was that they were unreliable in storms; they weren't rugged enough to have the endurance a useful ship requires. The maintenance costs were crushing.

None of these factors applies to the one-time use of plastic balloons as a "first-stage booster." You don't launch space-vehicles in storms anyway, and rugged endurance isn't involved. Like paper napkins, they don't have to stand repeated washings!

It was the same Colonel Davis who launched Farside who proposed the development of a shroud-wing-jet-to-rocket vehicle that would constitute a really different approach to getting into space, as reported in the January 1961 issue of Analog.

Whether the American people want Space opened or not makes no difference; it's been opened. Whether

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the American people want it or not, Space will be developed. And, whether the American people like it or not, that people which develops Space will eventually be the dominant power of the Solar System. The voice of the people is *not* the voice of God; there is no more dangerous delusion that a man—or a people!—can have, than to believe "I am God!"

The proper function of a wise government is to *lead* its people, not follow them; whether the people want Space or not—they *need* to develop it.

The great difficulty is that a government that rams its opinions down the throats of its people *may* be a highly benevolent teacher . . . and may be a ferocious despot.

Right now, then, we have the situation that the people of the nation *do not want* Space opened, or developed, and therefore do not want effective American—or Russian, of course!—Space programs.

If our government imposes an effective, dynamic Space program on the nation, it will be acting against the desires of the people. (It will be acting in the direction the people *need,* but not in the direction they *want.*) It must, then, be a nonrepresentational government—a "tyranny".

As things are now arranged, however, this means that America is inevitably committed to surrendering the future to the Soviets. The American people may feel very strongly that that is not true—but the voice of the people is *not* the voice of God. They are wrong; the future does belong to Space.

A very simple illustration of the necessity for developing space is the matter of natural resources. We're consuming minerals at an exponentially increasing rate—particularly the fossil fuels. Those fuels are carbon complexes; even if the fuel need was ninety per cent taken over by nuclear fuels, the nuclear fuels can never replace the need for carbon complexes in organic chemistry—the plastics we are more and more dependent on.

Deeper mines and wells won't solve the problem; the cost goes up too fast.

The people that develops Space will have available the quite literally inexhaustible supply of carbon—and nitrogen!—complexes of Jupiter's atmosphere. Since that atmosphere alone has greater mass than the entire Earth, Earth can't possibly consume that reserve!

The way America's strength grew great was by a system under which individuals and small groups were free to develop what they believed the nation needed, without having to impose it on the people, or forcing the people to support it, by decree.

(As of now, our government is a "tyranny" in that, whether I like it or not, I am forced by the laws of that government, to support projects I, personally, consider a waste of my money.)

In the period 1900-1910, America was doing just fine. The living standard was high—far higher than ever before. There was considerable social

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stability, it was a period of The Good Life.

One technological breakthrough disrupted, beyond hope of recovery, that whole way of life. The greatest social reformer of the last one hundred years forced a complete change of mores, economics, politics, and social relationships. Henry Ford introduced a cheap automobile.

The great railroad networks that had sprung up in the previous century have rapidly fallen deeper and deeper into trouble. The trolley lines that started after Edison's electric-power systems got going, and, by 1915, linked most of the Eastern part of the nation, have almost totally disappeared. Billions and billions of dollars have been poured into building roads of a quality and magnitude never imagined before. The courting customs of a people changed under the pressure of cheap, go-anywhere transportation available to individuals.

One technological breakthrough utterly disrupted a comfortable, going way of life. Property values in real estate shifted in a manner no one could have imagined.

Any dictatorial government which had sought to impose on a people such vast changes in mores, economics, and manners would definitely have been a tyranny of the first order.

Notice that the people of 1910 certainly would not have *wanted* such things! There was, of course, plenty of effort to impede those vast changes—plenty of sermons were preached on the evils of "modern youth" and their automotive courtships.

The essential advantage of the system of Private Enterprise—and the thing that makes it hated by the *vox populi!*—is that it permits men to *offer their fellow men a sample of what can be!* Americans didn't *have* to buy Henry Ford's product—but they found they did, in fact, want it—consequent social, economic and political upheavals or no!

It's quite appropriate that it was the Ford Motor Company that was willing to back two-thirds of the cost of Operation Farside! It isn't that private industry, today, is unwilling to go ahead and develop Space themselves—the problem is that, under the present governmental-control system, *they are not allowed to.*

When the *vox populi* syndrome really gets rolling—when the people mistake themselves for God—they "know" in their divine wisdom what should and should-not be done. And right now, they "know" that Space shouldn't be developed. Wherefore their government will move to suppress the activity they don't want.

It wouldn't be so bad if it were only that the government didn't attempt to develop Space; the problem really comes from the fact that *the government prevents private enterprise from doing so.*

The situation reminds us, on a vaster scale, of a weird little business that came up some years back. The Western Union Telegraph Company has, for many years, run a "night letter" service. You can send relatively long messages at a special low rate at

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night, thus allowing the company to get greater utilization of its equipment during the off-peak hours. But Western Union found that the night-letter business between New York and Washington, D.C. was getting very heavy indeed . . . and found, presently, a highly efficient way of handling the traffic.

The night-letter messages for New York were typed out in Washington, loaded into a pouch, and a messenger put on the Pennsylvania Railroad train leaving Washington at midnight. The night letters were delivered promptly the next morning in New York by about nine o'cock. A similar setup running the other way took care of the reverse traffic. Since one messenger could carry several hundred night letters, the method was eminently practical.

The Government, however, put a stop to it. The Post Office Department has a Government monopoly on mail . . . and no private industry is allowed to compete with the Government.

So Western Union had to go back to the less efficient technique of wire communication . . . and the Post Office didn't take the hint and do the job themselves!

Private industry, today, is prevented from doing Space research; it's a Government monopoly. There's also the matter of the "hiwtyl game" system—the "Heads I Win; Tails You Lose" system of Government-financed research. It's seldom a corporation does what the Ford Company did, and actually finances a research program *for* the government's benefit! They'd rather have the government guarantee the cost, and take no risks.

That's not the attitude that built this nation.

And it is an attitude that makes the divine voice of the people have complete control—which, of course, the people believe they should have!

Could private industry finance Space research?

The answer's easy: Not the way the government's doing it! Not with "sophisticated missiles" and the like, and not with the bull-headed approach of "The way to solve an engineering problem is to put more men, more money, and more computers on the job." Nobody but a government could do it that way.

It's been said that we'd never have gotten atomic power if it weren't for the government-backed Manhattan Project's two billion dollar bulldozer attack on the problem.

Anybody really want to bet? The Germans have, since, developed a neat little low-cost technique for separating U-235 by a centrifuge arrangement. I've heard of two other techniques, using quite different approaches, that, at least theoretically, should be even cheaper. One of them sounds like a home-workshop system.

Project Farside, the first successful deep-space probe in human history *was two-thirds financed by private industry.* That private industry *could* finance Space development is not open to argument; it's an historical fact.

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Some months ago, on these pages, I pointed out that Project Echo was the first non-crackpot development of Space. Private industry *could* pay the costs of Space development, not merely as research, but as a pay-your-own-way economics system!

If our representative government would let it. Which it will not, so long as it represents the will of a people who definitely want Space-research *not* to succeed.

How could private industry finance the cost of Space research?

For one thing, notice that Big Science—the lofty Universities and technical agencies of the Government—have the general attitude of the Sacred Science approach. Joseph Henry was a brilliant investigator; he was the first to construct a working electromagnetic telegraph system, long before that portrait painter, Samuel F. B. Morse. But Henry was a Scientist, and didn't believe in commercializing the majestic truths of Science. It was years before Morse got the idea, and did something useful with it. Science isn't a Sacred Cow, despite what some people say—but a lot of Scientists think they're Sacred Cowherds.

They lack the old-time—not to be found in the modern—American characteristic of enjoying the Grand Guffaw. Abraham Lincoln wasn't afraid of a belly-laugh; modern American presidents seem to be. Times have changed.

How could Space research be supported? Hah! P. T. Barnum would have loved the chance!

Look—if a mere twenty thousand dollars can put something four thousand miles into space . . . what could be done for two hundred thousand dollars? And what's the advertising budget of one of the big United States corporations? The cost of a simple one-hour TV spectacular runs anywhere from two hundred thousand to one million dollars—for one single hour in which the corporation hopes people will hear about it and watch to get the advertising message. Why, for the sheer, gorgeous hell of it, old P. T. Barnum would have had a Space-balloon up there, shaped like Jumbo, and visible to at least half the whole danged world!

He would, in the process, have knocked the pins right out from under the Russian psychological-warfare advantage; the effect of Sputnik I—which did nothing useful, except be-up-there—would have fallen to near zero if an American industrial outfit had put up an advertisement-satellite.

The Echo satellite was mirrored, so that it couldn't be seen except as a pinpoint reflection of the Sun. But if a white polyethylene film balloon were put up five hundred to one thousand miles, anyone with a modest telescope could have seen its shape. And anyone could have seen the point of light circling the Earth!

Could modern Big Science—Sacred Science—consider so neat and simple a method of combatting Russia's highly effective psychological warfare advantage?

Why . . . that would be Scientific Sacrilege! Commercializing Science!

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Joseph Henry would never have approved!

Yeah . . . and winning a highly important victory in the psychological war we're losing steadily. What would the Russian propagandists have had to say of that American advertising satellite . . . . that didn't demean beyond recovery the importance of merely putting hunks of hardware in the sky? To prove that their satellites were different and better, the Russians would have been forced to publish useful information gained from the satellites . . . which, as things have been, they've never done.

Colonel Davis has said that, for two hundred thousand dollars, he could have landed a package on the Moon.

Years ago, Dr. Munro of the United States Bureau of Standards, discovered the "Munro Effect"—the effect produced by a shaped charge of high explosive. One demonstration he gave involved putting a lace doily on a plate of armor steel, and a shaped charge on the doily. When the charge was set off . . . lo! a beautiful impression of a lace doily neatly carved in the solid steel.

Could something like that allow a small Space package to drive a mass of aluminum flakes or the like through a template, to put a huge, highly visible splotch on the surface of the Moon?

Vandalism! Horrible!

Yeah? That aluminum could be just as sterile as any of the oh-so-scientific probes they've sent—and it would do a tremendous lot of good for American prestige . . . *as a people who got things done.*

America's high achievement in the past was by *getting things done* . . . not by being Cultured and Educated and Scientific. Europe was Cultured and Educated and Scientific—but it was rude, commercial, uncouth Americans who invented telegraph, telephone, electric power systems, airplanes, and mass production. Who got things done.

To hell with being Scientific—Sacredly—Cultured, and Educated! Europe tried that—and slipped from running the world doing it. Those modern rude, uncouth, uneducated Russians are following the path clearly outlined by America—and now abandoned by us. They are doing things.

One of the greatest propaganda victories imaginable for us right now is knocking the wind out of the stuff-shirt attitude toward Space science. If that could only be done to our own Space Scientists—the Big Science people—we'd have a chance of cutting the Russian position down to size.

We'll never cut down the great reality of their achievement—getting a man into space as an observer is a terrific, solid technical advantage. But the propaganda advantage of their big satellites would vanish if we sent up some advertising satellites.

The United Fruit Company could afford a balloon shaped like a banana—RCA could readily divert a fraction of their advertising budget to

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put a radio tube in orbit. The Coca Cola Company could certainly advantage from putting their familiar shape—already known around the world—into orbit around the world!

The Ford Motor Company's already got a head start on providing Space vehicles; turn 'em loose, and let 'em show what *can* be done! Not a multi-million-dollar super-blooper like Vanguard—the cheap, mass-produced vehicles that Ford's been famous for.

The Voice of the People is NOT the Voice of God—it's a deadly delusion. And Science isn't Sacred; that's a stultifying delusion—it's the delusion that made Europe, that had everything necessary to do it, fail to develop any of the technical breakthroughs that came in the last century. The Nobel Prizes were all for Science—although Nobel made the money that paid for the prizes by engineering achievement. During the period America was getting things done, no American won a single Nobel Prize. Only since we've settled down to being Cultured and Educated and Scientific have we started collecting Nobel Prizes . . . and watched Russia make major breakthroughs in the technological war.

No government should be given the power to decide for the people whether what they want is what they should have or not; that's our objection to the Russian system, essentially. Be it most carefully noted, however, that what the Russian government has imposed on their people has, in the light of facts, actually been good for them. That it's a tyrannical system is beyond quest . . . but it is also provable that it has been a benevolent tyranny on the whole—so far. It has converted a population of starving serfs into a great technical nation—and that's a benefit in any terms you care to choose. But tyrannies don't stay benevolent!

The trouble is, our government now is acting to prevent individuals from *offering*—not commanding, but offering—the people what they need-but-don't-want. The private enterprise system did that. We didn't *have* to buy Henry Ford's cars . . . and we wouldn't *have* to buy the Ford Motor Company's rocket vehicles. But . . . it would be nice if we were allowed the chance, wouldn't it?

Big Government and Big Science always want to do things in a big, expensive way.

Private industry succeeds by doing it in small, cheap, and ingenious ways.

The Post Office wouldn't offer the quick, overnight guaranteed message service betwen New York and Washington; why should Western Union —or any other private entrepreneur —be denied the right to do what people need, and the government won't do?

By using ingenuity, simplicity, and forgetting that Science is Sacred, a unit weighing a couple of pounds could be put into orbit for under one hundred thousand dollars—probably way under.

But . . . not while the government won't let private enterprise

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even try to take the lead in the technological warfare for Space!

I have a suggestion: Maybe Aeroneutronics could get together with one of the major advertising agencies, and the government of one of the smaller nations, with a nice convenient island with little or no population, and establish a private-industry Space launching pad. If the American government won't allow Americans to do what they can in their own country—perhaps they can set up and do the job, despite the government, outside of the country.

We don't lack the men capable and willing; we don't lack the industrial ability. What we lack is the freedom to go ahead and do what we can do!

I'd like to quote from a letter received from a friend at one of the top United States Space launching-pads—a man who's been pushing science fiction into reality for years. He was one of the scientists who helped at Eniwetok when the first hydrogen bomb was tested; he was there again when Project Farside was launched. He's in the Space-business now, at one of our major Space bases: "I am frothing and champing here as the typical rebel would. The pace is not completely to my liking, and I feel we could be making better time down the road if we had a little more guts. If the United States policy back in the old days had been as cautious as it is today, we would still be trying to get the first covered wagon across the Missouri!

"A lot of the top United States men who went into the rocket program in the early days, when the first V-2s were brought over for testing, have gotten disgusted, and gone off to do other things. They're around—and would be happy to get in on a private-industry program that really meant to push for Space!

The men are available, and anxious. It's not a lack of ability, of technology, or anything save the attitude of *wanting* to do it!

Let's see now . . . who does own the Galapagos Islands? Must be a lot of convenient islands around that could be used. Oh . . . but maybe United States governmental interference through diplomatic pressure on our South American neighbors would make it difficult. But say . . . bet the Malagasay Republic would like being one of the foremost centers of Space technology!

That Coca Cola bottle-in-the-sky would be ideal, of course, but if they don't want to . . . hm-m-m . . . too bad there aren't any really big pie manufacturers—but whoa! How about General Mills? They made the plastic balloons for Farside anyway, and why shouldn't they put pie-in-the-sky for promoting their pie-crust mixes?

The American programs these days are so blasted *serious*—so sacred about everything—that nobody's having any fun doing it.

Who's for pie-in-the-sky—the kind of pie-in-the-sky that can deflate a propaganda campaign, and really do mankind some good?

The Editor.

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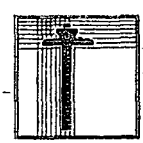
THE UNWANTED EVIDENCE

By WALTER B. GIBSON

Gibson is a top member of the American Magician's Guild, a member of the Houdini Committee, and a member of the American Society for Psychical Research—and here discusses the problem of solid, documented evidence in legal cases . . . that isn't legal evidence, but nonetheless solves cases!



THOUGH it is the sworn duty of a witness to "tell the truth, the whole truth and nothing but the truth," a strict adherence to that rule does not mean that his statements will necessarily go on record.

To be acceptable, a truth must fit the definition of "conforming to fact or reality" or that of "being in accord with what is, what has been and what must be." So while the man who states the truth is allowed no mental reservations, the statement itself must come within the limitations of those held by his hearers.

If it goes beyond the range of their experience or belief, it is barred. Under that taboo come all forms of "psi phenomena" or anything of a so-called "psychic" nature. Being classed as "extrasensory" they are not recognized as physical facts and therefore are suppressed as evidence.

That does not mean that psi phenomena are ignored, even by the skeptics. On the contrary, such data often may be used, but not credited. It is easy to follow up a "hunch" that someone has mentioned and if it works out, attribute it to some more tangible source, such as keen investigation of the facts in question.

But if it leads nowhere, it can be charged off to a failure of the hunch

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itself. Skeptics are usually eager to cite such failures as proof that all hunches are just guesswork; nothing more. Thus it is impossible to obtain an honest appraisal of psi phenomena of the spontaneous type.

There is one course, however, that may help to clarify this issue. That is to examine the evidence itself in various cases where psi phenomena have been mentioned as factors, but have not been recorded as evidence. These, appropriately, have been chosen from one general category; instances where crimes occurred, or some police or legal proceedings were involved. These bring out the point perfectly, for they show how psi phenomena have functioned as warnings or in some similar fashion; and yet have been suppressed, disregarded or overruled in the very place where they might have obtained a proper hearing, the courtroom.

People may be entitled to their day in court, but not psi phenomena. That seems to be the invariable rule in the instances to be described, all of which involve extrasensory perception (ESP) rather than psychokinesis (PK). They have found their way into newspaper accounts or personal recollections of individuals involved; but never as court records.

The same taboo is found in police reports, as will be seen; but here, there is more leeway. From a long way back, however, the usual rule in crime investigation has been to reject the mere suggestion of any psychic power or occult influence that modern parapsychology would define as representing the psi factor.

Officially that has been the attitude of Scotland Yard since the time when the Old Yard itself was literally jolted by a Fenian bomb which blew the wall out of the detective headquarters at 9:20 p.m. on May 30, 1884. Here is the report of that outrage as related by Detective Inspector John Sweeney:

"By extraordinary good fortune there was at the actual moment absolutely no one in our offices. Earlier there were two men in the building, one of the inspectors and myself. He went out just before me; I was busy making out a report but on finishing it I also went out, thus escaping death by about a quarter hour. The very desk at which I had been working was blown to pieces."

Unofficially, however, Detective Inspector Sweeney had a different version, which according to a Scotland Yard man who had heard it repeated, ran as follows:

While working at his desk, Sweeney was gripped by an "unaccountable feeling"—more like an "urge" —to go out into the street and look around. All was quiet; nobody was loitering about. Yet, try as he would to suppress the feeling, he still sensed some impending danger.

About to return to his office and resume work that would take hours, an "impulse" made Sweeney think of something to do elsewhere. Though it was unimportant compared to his reports and could therefore wait, the

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"urge" won out. He went away and returned an hour later to find the front of the building blown out.

Ex officio, a crime investigator can be frank indeed, when describing instances where he has been confronted by a sheer, hard wall of impenetrable fact, only to watch it dissolve under the action of circumstances that he would not have credited if told to him by any one else, even as fiction.

This was emphasized many years later by former Superintendent Francis Carlin, in his "Reminisences of an Ex-Detective," when he stated:

"A vast number of extraordinary communications are received by Scotland Yard, particularly when some big crime has been committed. There is the letter from the individual who has 'second sight' and has either seen in a vision the crime committed or the appearance of the criminal. I wish to say that I and my former colleagues never put aside any of those communications lightly."

As a prime example, Carlin cited a case that began with the suicide of a swindler named Ernest Dyer, who shot himself while resisting arrest. Scotland Yard learned that Dyer had a partner named Eric Tombe, who for eighteen months had been going about England passing phony checks and had cleared the country upon hearing of Dyer's death.

Checking back on Tombe, Inspector Carlin called on the man's parents, only to have Tombe's mother tell him solemnly:

"Eric is dead. He has been dead for many months and you will find him at the bottom of a deep, dark well. I have seen him there in the same dream, over and over."

Tombe's father corroborated the recurrence of the dream and gradually Carlin became convinced, particularly when he learned that Dyer and Tombe had owned a long-abandoned and much neglected farm. He put a crew of men digging beneath the masses of weeds and they came upon an old forgotten well. At the bottom they found a body which was identified as Tombe's.

From then on, facts were rapidly pieced: Dyer had murdered Tombe; then had gone about impersonating his slain partner and forging Tombe's name so cleverly that the dead man had been blamed. The ruse would never have been fully known, nor Tombe exonerated, but for his mother's dream. Summing the case, Carlin declared:

"It was one of the most remarkable things I have ever come across in my career that a dream should have been the starting-off point in the investigations in this unparalleled mystery."

Now comes the letdown. Ex officio, the dream could be discussed and evaluated; but it wasn't for the record. The jury, closing its inquest on Tombe, declared Dyer guilty; then praised the police for their work and expressed sympathy toward the victim's parents. But no mention was made of the vital factor, the clairvoyant experience that led to a solution of the crime.

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The same taboo applied in the murder of Irene Munroe, an attractive London stenographer, who was found battered to death on the Crumbles, a rough, stony beach near Eastbourne, on August 20, 1920. Police questioned every one who might have been walking with her on the previous day, including two men named Jack Field and Bill Gray, who came up with absolute, air-tight alibis that accounted for almost every minute of their time.

While the investigation continued to bog down, a London newspaper man obtained some articles belonging to the dead girl and gave them to a woman who was noted for her psychometric ability of gaining "impressions" from such items. The psychometrist visualized two men leaving the death scene and "followed" them to a building that appeared to be a small, white-fronted hotel. Over the door she saw the name: "Albemarle."

There proved to be an obscure hotel by that name in Eastbourne and when the newspaper man informed police of the psychometrist's vision, they made inquiries there. They learned that two men answering the descriptions of Field and Gray had stopped at the place and bought a few drinks, while displaying a sizable amount of cash.

The pair hadn't included the Albemarle on their time sheet when questioned previously. Picked up again, they were flabbergasted when the hotel was mentioned. Trying to account for the money they had spent at the place, they bungled their story further, claiming that they had drawn it at a bank, whereas it was actually Irene Munroe's vacation savings.

The two men were tried, found guilty and hanged. In both their original trial and a later appeal, dozens of witnesses were heard and reams of evidence were read. But there was no mention of the clairvoyant who had placed an invisible finger on the one flaw in their alibi and had pressed it right out of shape.

More than a year later, a girl named Irene Wilkins was murdered in Bournemouth, another English coastal resort, where she had come in response to a fake telegram offering her a nonexistent job. Again, a woman of reputed clairvoyant ability was called into service and conducted a series of seances which, according to one authority, were attended regularly by members of the Bournemouth police.

While in trance, the psychic pieced the pattern of the murder, pictured the slayer and even traced him to his home where the police arrested him. He proved to be a local cab driver named Thomas Allaway and an iron-clad case was soon developed that sent him to the gallows.

A London newspaper commented: "The Bournemouth murder will go down in history is one of the finest detective stories in our police annals." To this, a Scotland Yard man familiar with the case added: "So it will, but it might never had had a place in detective history had it not

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been for the aid of occult science offered to and accepted by the Bournemouth police."

None of that was introduced as evidence at the trial. Such findings seldom are, for any mention of the "psychic" or the "occult" is more apt to ruin a case than to help it. Moreover, it can bounce back on the person who is sincerely trying to help by exercising the psi factor, which—to him or to her—is merely a normal function.

This happened with Edgar Cayce, the famous "psychic diagnostician" whose ability to note disease symptoms and suggest remedies while in a trance condition won him the gratitude of hundreds of patients who were benefited by his work. While Cayce was living in Hopkinsville, Kentucky, he was asked to visualize a house in a Canadian town where a young woman had recently been murdered, resulting in a so-far unsolved mystery.

Cayce pictured the scene perfectly in a trance and identified the dead girl's sister as the slayer. Word was sent to the police chief in the Canadian town and when he followed up the clairvoyant lead he found it to be right. Next, the police chief arrived in Kentucky with warrants for Cayce and the man who had suggested that psychic powers be used to crack the crime.

The chief's reasoning was that if they knew so much about the murder, they must be implicated in some way. They managed to convince him that the case had been solved by some form of remote mental control, so the chief dropped talk of extradition and went home. Apparently, there was no mention of Cayce's part in the subsequent court proceedings.

That goes almost without saying, as it happened at about the same time as the Hayward murder which has become a classic in Canadian crime annals, largely due to the fact that the only witness was not allowed to testify in court because he was six thousand miles away from the scene when it happened!

The victim was a prospector, Edward Hayward, who was shot by his partner, Charles King, under the straggly moonlight that filtered through the trees of the Alberta woods on a night in September, 1904. The witness was Hayward's brother George, who was asleep in his home in England, where he dreamed of the occurrence in vivid detail.

George Hayward reported the dream to friends and relatives the next day and they tried to get in touch with Edward, who had gone to Canada long before. Finally, word was received of the murder and George's dream proved to be the one big missing link in the case. He came to Canada and was present at King's trial, but his testimony was not admitted.

Every one agreed that it was both accurate and remarkable; but they were equally positive that no judge or defense counsel would accept it as evidence. Instead, it was simply written off as "coincidence," which has

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long been the scientific term that "explains" the unexplainable; and has apparently gained a legal status, too.

Unfortunately, the very prejudice that shrieks "Coincidence!" regarding odd dreams or isolated experiences, raises still louder battle cries at persons who demonstrate psychic faculties frequently and consistently. Then, scientists shout "Trickery!" and legal minds blare "Complicity!" in their tandem attempt to prove that nothing exists unless it can be hauled into a laboratory or haled into a courtroom.

Cayce encountered that when he solved the Canadian crime. Later, he was asked to give a trance "reading" regarding a railroad switchman whose negligence had been blamed for a big wreck. Cayce came up with the prediction that if the man stayed on the job, he would cause another fatal crash in which the official making the inquiry would lose his life.

To that, Cayce added the somewhat cryptic comment that the accident would occur in Virginia and West Virginia. This sounded so contradictory that the official disregarded the warning entirely. One night his private car was sidetracked near the state line. The same switchman was on duty and made another slip. A locomotive roared into the private car and knocked it into the next state, killing the official and fulfilling the prophecy.

After that, Cayce preferred to avoid such questions and concentrate on his psychic healings, which were more beneficial and certainly safer than readings of a premonitory type.

For it is in cases of precognition that persons who display the psi factor run into the most stubborn opposition, particularly on legal grounds. Various ordinances have been directed against persons who "pretend to tell the future." But any one who does tell it correctly, under suitable test conditions, is apt to be accused of having known it all along and therefore is open to a variety of other charges.

This happened with a young woman in Norway, Ingeborg Dahl, who gave some remarkable demonstrations of "automatic writing" that were encouraged by her own family and witnessed by experienced psychic investigators. In one of her predictions, she foresaw the death of her father, a retired judge, in a drowning accident.

In the summer of 1934, the judge happened to go bathing on the beach at Hanko. He was seized by cramps and his daughter, who was on the shore, swam to his rescue, but was too late. After news of his drowning was published, some one brought up the predictions that his daughter had made.

Immediately the very skeptics who had been saying that the woman's predictions were purely luck, came up with the fantastic charge that she had drowned her father in order to prove her own prophetic power!

The old taboo featured the court trial that followed, but with new refinements of intolerance. Since the

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testimony of experts in the field of parapsychology would have helped the defense, the Norwegian Society for Psychical Research offered to provide such witnesses but this was not allowed. Nothing that might offend scientific prejudice could be tolerated. Actually, psychic researchers were themselves on trial, though it took them a while to realize that they were the actual target of a campaign that resembled the famous Salem witch-hunt.

The prosecution, however, was unable to produce sufficient evidence to support a murder charge. After an extended trial it was decided that the judge's own "presentiment" of his death might have produced "reciprocative suggestive influences" that came back to him during his daughter's trances. So the case was dismissed on what amounted to a hypnotic explanation.

Hypnotism has become a convenient "handle" in recent years. Criminals have claimed that they were hypnotized into committing illegal acts. Confessions have been repudiated on the grounds that they were the result of posthypnotic suggestions. Only recently a marriage was annulled on the ground that the bride had been hypnotized. In another case, a Chicago judge declared: "The court takes notice that posthypnotic suggestion is a usual procedure and that a person can be controlled after coming out of a trance."

Yet thirty years ago, one authority stated that "Hypnotism is hardly recognized in our jurisprudence as a thing proved" and that it was generally "rejected on the ground that recognition of it in our jurisprudence and our administration of the law would be an innovation not to be countenanced."

Going another thirty years back, to the time of "Jack the Ripper," they felt the same doubts about bloodhounds. Sir Robert Anderson, then head of the Criminal Investigation Division of Scotland Yard, indicated that he "had little faith in the beasts" but hired a pair after some one wrote a sharp letter to *The Times* insisting that they be used to track the "Ripper." They failed completely in that case; but bloodhounds are still used to track criminals. The same rule can be applied logically to the psi factor in humans. Once established as a successful means of crime detection, failures are merely a matter of adverse percentage, due often to unfavorable conditions.

Perhaps there is a subtle link between bloodhounds and clairvoyance. Possibly dogdom is as puzzled by the faculty displayed by bloodhounds as skeptics are by humans who demonstrate extrasensory perception. Long training is essential to the development of a bloodhound's powers and the same apparently applies to the psi factor in people.

In a New England town, a man returned from a brief trip to the store and stumbled across his wife's body at the foot of a back stairway leading to the second floor. She had died from a severe blow on the back of

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the head; whether from a fall or a blunt implement was the question.

The prosecutor's office sought evidence in the case, but soon reached a dead end. No one had reported a stranger in the immediate vicinity, but it seemed likely that an outsider was responsible as the woman and her husband were apparently happily married and he had an almost air-tight alibi.

Any shades of suspicion were fading in the husband's case when a woman from another town entered the prosecutor's office and told of a strange vision that had swept her after reading of the case. This woman, who was a practicing clairvoyant, described a shed connected with the house, but which had not been mentioned in detail in the news accounts.

There, the clairvoyant continued, she had seen two persons, a man and a woman, walking together past a bin. The man gestured the woman ahead towards a stairs and behind her back, he drew out a short, heavy club that was hidden in the bin. Overtaking the woman, he bludgeoned her as she was starting up the steps; after striking her, he fled out a door.

Not only did this tally with the death scene, the description fitted the victim and her husband, the only man who would have been walking with her through the shed or could have planted a club in the bin which was also accurately described. Working on that basis, the prosecutor questioned the husband again and at the proper juncture confronted him with details of the crime.

The husband suddenly broke and confessed the murder. Each added detail fitted exactly, even to the murder weapon which proved to be a spare rolling pin that the slayer had put there to await the opportunity when he could deal quick death and hurry out to frame an immediate alibi. He even produced the improvised club from the place where he had later hidden it.

The case created a sensation and the trial resulted in a conviction, but nowhere in the official record was any mention made of the psychic factor involved. A strange, clairvoyant vision had started the sequence of events leading directly to a solution of the case, but it was not courtroom evidence.

In California, a woman who dabbled in clairvoyance had a trance vision of a violent fray in which she pictured one man lying dead and another staggering away wounded. She also "saw" a man in uniform lying injured. All these were detached incidents in a transitional scene that came in vivid flashes rather than a running sequence. The clairvoyant was able to set the time as a few nights ahead, though she was unable to specify an exact hour or place.

Skeptical police, informed of this, charged it off to the woman's imagination until the evening named. Then, two bandits attacked the box office of a local theater; shot and killed the manager; then fled, pursued by a motorcycle policeman who crashed up and was badly hurt dur-

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ing the chase. Other police promptly picked up the trail and cornered one holdup man in a hideout, where he was shot and killed in a pitched battle.

In all these details, as well as other minor points, the prediction was correct, scoring a high percentage of hits far beyond chance expectancy. Months afterward, the missing bandit was captured and convicted, but the trial testimony contained no record of the clairvoyant experience which had foretold his crime.

Some times the misinterpretation of the time factor can play a grim part in precognition. Only recently, a woman patient in a hospital in Brockville, Ontario, had a harrowing dream in which she saw her son lying injured in a car crash near the International Bridge to New York State.

It was so real that the hospital phoned police, who indulgently checked the scene to ease the woman's qualms. There had been no accident, so she was finally calmed and nobody thought it necessary to bother her son by telling him about his mother's meaningless nightmare.

Three nights later, the son was driving with some friends along Route 401 and their car hit a paving machine at almost the exact spot that had figured in the woman's dream. Her son was injured as she had foreseen; two of his companions were killed.

Fear, injury, death—all are factors which seem to etch these extrasensory impressions in the sensitive mind. But remove these and results are often so negative that they should be scored on the positive side. As a recent instance:

A woman noted for her ability at tracing missing persons was called upon to exert her clairvoyant faculties in finding a girl who had been kidnaped by two men in a mysterious car. Each "lead" that the psychic developed turned into a meaningless jumble. Nothing could even begin to register. Psychometric tests with articles belonging to the abducted girl drifted into the same limbo.

In the midst of it came the answer. The girl suddenly reappeared in a Midwestern city, told a fantastic kidnap story that didn't jell with the police and finally admitted that the whole thing was a hoax on her part.

The clairvoyant couldn't have received the usual "fear" or "danger" signals because there were none. Added to that was the possibility of an amnesia angle in the case, which in its turn could account for the vague, purposeless, even misleading impressions obtained by the clairvoyant.

Ten years ago, the famous Coronation Stone was stolen from Westminster Abbey, creating a sensation throughout Great Britain. It was something incredible to many Englishmen; they felt about the way the average American would feel if he woke up some morning to learn that the Liberty Bell had been mysteriously spirited from Independence Hall.

Lifting the Stone of Scone, as it

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is sometimes called, was not a tremendous undertaking, but it was sizable enough to require the work of several persons. To get away completely with such a bulky object without leaving a trail was also quite a problem for the perpetrators.

So Scotland Yard went to work on the case in its own exhaustive way. Investigators quizzed everyone seen around the Abbey on the day of the theft and even traced their antecedents to learn if any were linked to political fanaticism.

Crews laboriously dredged the Serpentine and other bodies of water where the Stone might have been dropped by the thieves in their anxiety to complete their getaway. Constables probed the oddest of out-of-the-way places. Experts were put to work trying to trace clues from a "ransom note" that arrived at the Yard from a Glasgow newspaper, where it had been found on a counter. The note offered to return the Stone if the government agreed to keep it in Scotland, where it formerly belonged, instead of England.

During three months of hit-or-miss investigation, Scotland Yard received offers from sincere clairvoyants who wanted to help find the Stone through extrasensory means. The applicants included one man who had successfully helped European police in similar cases. He reportedly gained an impression of a crowbar used in the case. After such a crowbar was discovered and a picture of it printed in newspapers, the case came to a sudden conclusion.

Possibly the canny clan who had engineered the theft felt that they couldn't cope with anything as uncanny as clairvoyance. One day, three men delivered the Stone of Scone quite openly, at high noon, to the custodian of the ruined Abbey of Arbroath in Scotland, who notified local police. Scotland Yard men were summoned to the scene, and sure enough, there was the famous Stone.

Yet Scotland Yard has never officially conceded that the noted international clairvoyant was called into the case. He was simply bundled into a general category that was dismissed *in toto*. As a spokesman for the Yard said later:

"One man declared that, given a few facts about the Stone, he would have no difficulty in locating it by some occult process of which he was master; but his offer of help was considered redundant by the C.I.D."

In short, the efforts of one well-qualified man were diluted by classing them with the failures of incompetents, so any success could be classed as "luck" on the clairvoyant's part. If the same rule were applied to the more usual forms of criminal investigation, they, too, would be subject to ridicule. In the solution of many of the world's most notorious crimes, dozens of investigators have bungled badly, followed false trails and come up with preposterous clues. Yet that has never been used to disparage the work of a master detective who succeeded where fifty others have failed. Rather, he has been commended for his near-genius.

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Not so with any display of clairvoyance or other "occult" faculty. It is unwanted as evidence. So unwanted that the tendency is to belittle even the initial effort rather than have it reach the state where it has to be rejected as evidence of the unwanted sort.

The same clairvoyant who sought the Stone of Scone was recently called in by private individuals to seek extrasensory "leads" to a mass slaying which had occurred in Virginia. Police had quizzed and released scores of suspects in the case, which was still a mystery when the clairvoyant entered.

His process was simple. He paid repeated visits to the scenes of the crimes and there excluded all other thoughts from his mind in order to pick up "impressions" that might lead to persons or places. In this case, he closely described one of the released suspects, a man he had never seen, giving details about him which even the police investigation had failed to disclose.

The suspect was picked up again and after making new and damaging admissions, was held in custody. Meanwhile, the FBI, which had been investigating the mass slayings, came up with another man as a suspect in at least one of the murders. This man, too, was arrested and held on the statements of witnesses close to the case, as well as physical evidence obtained from crime lab tests.

This conflicting case illustrates, to certain degree, the crux of the whole matter. In each instance, tangible clues, acceptable as evidence, pointed to a specific suspect; but there, ordinary modes of investigation bogged down. From then on, it was necessary to bridge the gap with further findings in order to arrive at positive suspicion.

The investigator with ESP proclivities utilized what might be termed "psychical" tests or measures to achieve that ultimate. Investigators who depended on the crime laboratory and a survey of the scene itself, were using "physical" tests and measures to arrive at the same goal.

But how far would the ESP evidence get, if submitted to a court of law? Today, it would get nowhere. As legal evidence it would be overruled, stricken from the record, if even brought up in the first place. From that comes the maxim:

Nothing can ever be evidence as long as the facts themselves are excluded. Most of the instances so far cited—dreams, hunches, psychic impressions—all are relegated to that category. From this has developed the unwarranted tendency to claim that such things didn't happen because they couldn't happen, or that they were imagined, and that finally—whatever else might be said—they were meaningless.

By that same token, if fingerprints were excluded from the record, they could never be accepted as evidence. In a sense, they wouldn't legally exist, any more than ESP impressions. It would be difficult to say they didn't exist, but any similarity in their im-

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pressions could be charged to imagination, as indeed they once were. So in the final summation, they were considered meaningless and therefore nonexistent as evidence.

That was not the result of scientific acceptance. It was the outgrowth of scientific ignorance. To accept a negative as a positive by rejecting any indications to the contrary, is not scientific. You may hear the oft-repeated phrase that ESP and kindred phenomena are "not scientifically proven" and therefore do not exist. But is that scientific proof in its own right? Emphatically not.

It is not the province of science to set itself up as a court of law and accept or reject what fits its customary findings, or otherwise. Laws are man-made and have recognized limitations, which may be arbitrarily imposed. All evidence must be examined before coming to a scientific conclusion. When evidence is concealed, it is a violation of scientific philosophy.

We need proof that scientific philosophy is *not* being applied before we can reject ESP findings as unfounded. There are many instances wherein such experiments have not been properly or completely tested and have thereby been rejected as failures, which in itself is a violation of that same scientific philosophy.

Without fair investigation, it is impossible to determine what is true or false. That is the real starting point and it demands an open and impartial approach. Refusal to accept such honest investigation is to reject scientific philosophy outright. What crumbles under such a strain are not the claims of the impartial ESP investigator, but those of the critics who disprove their own arguments by rejecting scientific philosophy along with the very evidence that they "scientifically" exclude!

THE END

Sign Seen in a Nuclear Research Lab

"Hundreds of scientific experiments have conclusively shown that the beating of tom-toms always causes the Sun to reappear after an eclipse."

It is at least useful to remember that *post hoc ergo propter hoc* reasoning has always been with us . . . and very likely still is.

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HANGING.

By DAVID GORDON

Illustrated by Douglas

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JAYJAY Kelvin was sitting in the lounge of the interplanetary cargo vessel *Persephone*, his feet propped up on the low table in front of the couch, and his attention focused almost totally on the small book he was reading. The lounge itself was cozily small; the *Persephone* had not been designed as a passenger vessel, and the two passengers she was carrying at the time had been taken on as an accommodation rather than as a money-making proposition. On the other hand, the *Persephone* and other ships like her were the only method of getting to where Jayjay Kelvin wanted to go; there were no regular passenger runs to Pluto. It's hardly the vacation spot of the Solar System.

On the other side of the table, Jeffry Hull was working industriously with pencil and paper. Jayjay kept his nose buried in his book—not because he was deliberately slighting Hull, but because he was genuinely interested in the book.

"Now wait," said Masterson, looking thoughtfully at the footprints on the floor of the cabin where Jed Hooker had died. "Jest take another look at those prints, Charlie. Silver Bill Greer couldn't have got much more than his big toe into boots that small! Somethin' tells me the Pecos Kid has . . ."

". . . Traveled nearly two billion miles since then," said Hull.

Jayjay lifted his head from his book. "What?" He blinked. "I'm sorry; I wasn't listening. What did you say?"

The younger man was still grinning triumphantly. "I said: We are approaching turnover, and, according to my figures, nine days of acceleration at one standard gee will give us a velocity of seventeen million, five hundred and fifty miles per hour, and we have covered a distance of nearly two billion miles." Then he added: "That is, if I remembered my formulas correctly."

Jayjay Kelvin looked thoughtfully at the ceiling while he ran through the figures in his head. "Something like that. It's the right order of magnitude, anyway."

. . BY A THREAD

It's seldom that the fate of a shipful of men literally hangs by a thread—but it's also seldom that a device, every part of which has been thoroughly tested, won't work . . .

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Hull looked a little miffed. "What answer did you get?"

"A little less than eight times ten to the third kilometers per second. I was just figuring roughly."

Hull scribbled hastily, then smiled again. "Eighteen million miles an hour, that would be. My memory's better than I thought at first. I'm glad I didn't have to figure the time; doing square roots is a process I've forgotten."

That was understandable, Jayjay thought. Hull was working for his doctorate in sociology, and there certainly wasn't much necessity for a sociologist to remember his freshman physics, much less his high-school math.

Still, it was somewhat of a relief to find that Hull was interested in something besides the "sociological reactions of Man in space". The boy had spent six months in the mining cities in the Asteroid Belt, and another six investigating the Jovian chemical synthesis plants and their attendant cities. Now he was heading out to spend a few more months observing the "sociological organization Gestalt" of the men and women who worked at the toughest job in the System—taking the heavy metals from the particularly dense sphere of Pluto.

Hull began scribbling on his paper again, evidently lost in the joys of elementary physics, so Jayjay Kelvin went back to his book.

He had just read three words when Hull said: "Mr. Kelvin, do you mind if I ask a question?"

Jayjay looked up from his book and saw that Jeffry Hull had reverted to his role of the earnest young sociologist. Ah, well. "As I've told you before, Mr. Hull, questions do not offend me, but I can't guarantee that the answers won't offend *you*."

"Yes; of course," Hull said in his best investigatory manner. "I appreciate that. It's just that . . . well, I have trained myself to notice small things. The little details that are sometimes so important in sociological investigations. Not, you understand, as an attempt to pry into the private life of the individual, but to round out the overall picture."

Jayjay nodded politely. To his quixotic and pixie-like mind, the term *overall picture* conjured up the vision of a large and carefully detailed painting of a pair of dirty overalls, but he kept the smile off his face and merely said: "I understand."

"Well, I've noticed that you're quite an avid reader. That isn't unusual in a successful businessman, of course; one doesn't become a successful businessman unless one has a thirst for knowledge."

"Hm-m-m," said Jayjay.

"But," Hull continued earnestly, "I noticed that you've read most of the . . . uh . . . historical romances in the library . . ."

"You mean Westerns," Jayjay corrected quietly.

"Uh . . . yes. But you don't seem to be interested in the modern adventure fiction. May I ask why?"

"Sure." Jayjay found himself becoming irrationally irritated with

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Hull. He knew that the young sociologist had nothing to do with his own irritation, so he kept the remarks as impersonal as possible. "In the first place, you, as a sociologist, should know what market most fiction is written for."

"Why . . . uh . . . for people who want to relax and—"

"Yes," Jayjay cut in. "But what kind? The boys on Pluto? The asteroid slicers? No. There are four billion people on Earth and less than five million in space. The market is Earth.

"Also, most writers have never been any farther off the surface of Earth than the few miles up that an intercontinental cruiser takes them.

"And yet, the modern 'adventure' novel invariably takes place in space.

"I can read Westerns because I neither know nor care what the Old American West was *really* like. I can sit back and sink into the never-never land that the Western tells about and enjoy myself because I am not forced to compare it with reality.

"But a 'space novel' written by an Earthside hugger is almost as much a never-never land, and I have to keep comparing it with what is actually going on around me. And it irritates me."

"But, aren't some of them pretty well researched?" Hull asked.

"Obviously, you haven't read many of them," Jayjay said. "Sure, some of them are well researched. Say one-half of one percent, to be liberal. The rest don't know what they're talking about."

"But—"

"For instance," Jayjay continued heatedly, "you take a look at every blasted one of them that has anything to do with a spacecraft having trouble. They have to have an accident in space in order to disable the spaceship so that the hairy-chested hero can show what a great guy he is. So what does the writer do? He has the ship hit by a meteor! A meteor!"

Hull thought that over for a second. "Well," he said tentatively, "a ship *could* get hit by a meteor, couldn't it?"

Jayjay closed his eyes in exasperation. "Of course it could! And an airship can run into a ruby-throated hummingbird, too. But how often does it happen?

"Look: We're hitting it up at about one-fortieth of the velocity of light right now. What do you think would happen if we got hit by a meteor? We'd be gone before we knew what had happened.

"Why doesn't it happen? Because we can spot any meteor big enough to hurt us long before it contacts us, and we can dodge it or blast it out of the way, depending on the size.

"You've seen the outer hull of this ship. It's an inch thick shell of plastic, supported a hundred feet away from the steel hull by long booms. Anything small enough to get by the detectors will be small enough to burn itself out on that hull before it reaches the ship. The—"

Jayjay Kelvin was not ordinarily

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a man to make long speeches, especially when he knew he was telling someone something that they already knew. But this time, he was beating one of his favorite drums, and he went on with his tirade in a fine flush of fury.

Alas . . . poor Jayjay.

Actually, Jayjay Kelvin can't be blamed for his attitude. All he was saying was that it was highly improbable that a spaceship would be hit by a meteor. In one way, he was perfectly right, and, in another, he was dead wrong.

How small must a piece of matter be before it is no longer a meteor?

Fortunately, the big hunks rarely travel at more than about two times ten to the sixth centimeters per second, relative to Sol, in the Solar System. But there are little meteors—*very* tiny ones—that come in, hell-bent-for-leather, at a shade less than the velocity of light. They're called cosmic rays, but they're not radiation in the strict sense of the word. A stripped hydrogen atom, weighing on the order of three point three times ten to the minus twenty-second grams, rest mass, can come galumping along at a velocity so close to that of light that the kinetic energy is something colossal for so small a particle. Protons with a kinetic energy of ten to the nineteenth electron volts, while statistically rare, are not unusual.

Now, ten million million million electron volts may be a wee bit meaningless to the average man, so let's look at it from another angle.

Consider. According to the well-known formula $E = mc^2$, a single gram of matter, if converted *completely* into energy, would yield some nine hundred million million million ergs of energy. An atomic bomb yields only a fraction of that energy, since only a small percentage of the mass is converted into energy.

If *all* of the mass of an atomic bomb were converted into energy, the test in Alamogordo, New Mexico, 'way back in 1945, would probably have been the last such test on Earth; there wouldn't have been anyone around to make a second test.

So what does this have to do with cosmic ray particle? Well, if that atomic bomb had been moving at the velocity with which our ten-to-the-nineteenth-electron-volts proton is moving, it could have been made of sand instead of U^{235}. It would have produced ten thousand million times as much energy as the total disintegration of the rest mass would have produced!

Kinetic energy, my children, has a great deal more potential than atomic energy.

But we digress.

What has all this to do with Jayjay Kelvin?

If Jayjay had been a detective story addict instead of a Western story addict, he would have heard of the HIBK or "Had I But Known" school of detective writing. You know: "Had I But Known that, at that moment, in the dismal depths of a secret underground meeting place, the evil Chuman-Fu was plotting . . ."

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If Jayjay Kelvin had known what was going on a few million miles away from the Pluto-bound *Persephone,* he would have kept his mouth shut.

The cargo-ship *Mordred* was carrying a cargo of heavy metals sunward. In her hold were tightly-packed ingots of osmium-iridium-platinum alloy, gold-copper-silver-mercury alloy, and small percentages of other of the heavy metals. The cargo was to be taken to the Asteroid Belt for purification and then shipped Earthward for final disposition. The fact that silver had replaced copper for electrical purposes on Earth was due to the heavy-metals industry on Pluto. Because of Pluto, the American silver bloc had been broken at last.

The *Mordred* was approaching turnover.

Now, with a gravito-inertial drive, there is really no need to turn a ship over end-for-end as she approaches the mid-point of her trajectory. Since there is no rocket jet to worry about, all that is really necessary is to put the engine in reverse. In fact, the patrol ships of the Interplanetary Police do just that.

But the IP has been trained to take up to five standard gees in an end-to-end flip, and the ships are built to take the stress in both directions. An ordinary cargo ship finds it a lot easier to simply flip the ship over; that way, the stresses remain the same, and the ceiling-floor relationship is constant.

The *Mordred* had been having a little trouble with her Number Three drive engine, so the drive was cut off at turnover, while the engineer replaced a worn bearing. At the same time, the maintenance officer decided he'd take a look at the meteor-bumper—the plastic outer hull. Since the ship was in free fall, all he had to do was pull himself along one of the beams that supported the meteor-bumper away from the main hull. The end of one of the beams had cracked a part of the bumper hull—fatigue from stress, nothing more, but the hull might as well be patched while the drive was off.

It was a one-man job; the plastic was dense, but under null-gee conditions it was easy to maneuver. The maintenance officer repaired the slight crack easily, wiped the sticky pre-polymer from the fingers of his spacesuit gloves, and tossed the gooey rag off into space. Then he pushed himself back across the vacuum that separated the outer hull from the inner, entered the air lock, and reported that the job was finished. Five minutes later, the *Mordred* began decelerating toward the distant Asteroid Belt.

Forget the *Mordred.* The ship is no longer important. Keep your eyes on that rag. It's a flimsy thing, composed of absorbent plastic and gooed up with a little unpolymerized resin, weighing about fifty grams. It is apparently floating harmlessly in space, just beyond the orbit of Uranus, looking as innocuous as a rag can look. But it is moving sunward at

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eight hundred million centimeters per second.

The *Persephone* was approaching turnover. The ship's engineer reported that the engines were humming along smoothly, so there was no need to shut them off; the ship would simply flip over as she ran, making her path a slightly skewed, elongated S-curve—a sort of orbital hiccup.

Except that she never quite made it through the hiccup. The ship was almost perpendicular to her line of flight when she was sideswiped.

Her meteor detectors hadn't failed; they were still functioning perfectly. But meteor detectors are built to look for solid chunks of metal and rock—not thin, porous bits of cloth.

That rag had traveled a good many millions of miles since it had been cast overboard; it was moving sunward with almost the same velocity with which the *Persephone* was moving Plutowards. The combined velocities were such that, if it had hit the *Persephone* dead on, it would have delivered close to seventeen thousand kilowatt-hours of energy in one grand burst of incandescence.

Fortunately, the tip of the rag merely gave the ship a slap on the tail as it passed. The plastic meteor-bumper wasn't built to take that sort of thing. The plastic became an expanding cloud of furiously incandescent gas in a small fraction of a second, but the velocity of that bit of rag was so great that the gas acted as a solid block of superheated fury as it leaped across the hundred feet

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of vacuum which separated the bumper hull from the inner hull.

A rocket-driven missile carrying a shaped-charge warhead weighing several hundred pounds might have done almost as much damage.

Jayjay Kelvin moved his arms to pick himself up off the floor and found that there was no necessity for doing so. He was floating in the air of the lounge, and, strictly speaking, there was no floor anyway. He opened his eyes and saw that that which had been the floor was now just another wall, except that it had chairs bolted to it. It rose on his left, reached the zenith, and set on his right, to be replaced by another wall, and then by what had been the ceiling. The second time the floor came round, Jayjay began to wonder whether he was spinning around his longitudinal axis or whether the ship was actually rotating about him. He closed his eyes again.

He didn't feel more than a little dizzy, but he couldn't be sure whether the dizziness was caused by his spinning or the blow on his head. He opened his eyes again and grabbed at the book that was orbiting nearby, then hurled it as hard as he could toward the sometime ceiling. "The *Pride of the Pecos*" zoomed rapidly in one direction while Jayjay moved sedately in the other.

The ship was spinning slightly, all right. When he finally grabbed a chair, he found that there was enough spin to give him a weight of an ounce or two. He sat down as best he could and took a good look around.

Aside from "The Pride of the Pecos" and a couple of other books, the air was remarkably free from clutter. There hadn't been much loose stuff laying around. A pencil, a few sheets of paper—nothing more.

There was one object missing. Jayjay looked around more carefully, and this time he saw a hand protruding from the space "beneath" the low table. He bent down for a better look and saw that Jeffry Hull was unconscious. Blood from his nose was spreading slowly over his face, and one eye looked rather battered. Jayjay grasped the protruding wrist and felt for a pulse. It was pumping nicely. He decided that Hull was in no immediate danger; very few people die of a bloody nose.

The lighting in the lounge was none too good; the low-power emergency system had come on automatically when the power from the ship's engines had died. Jayjay wondered just what had happened. There had been a hell of an explosion; that was all he knew.

He wondered if anyone else aboard was alive and conscious, and decided he might as well find out. He took a long dive toward the central stairwell that ran the length of the ship's long axis and looked down. The emergency door to the cargo hold was closed. No air, most likely. The way up looked clear, so he scrambled up the spiral stairway.

A few feet farther up, he found that he had passed the center of the ship's rotation. The *Persephone* was

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evidently toppling end-over-end, and the center of rotation was in the lounge itself. The heavy cargo in the hold was balancing the lighter, but longer, part of the ship above the lounge. He began climbing down the stairwell toward the navigation and control sections.

Somewhere down there, somebody was cursing fluently in Arabic.

"Illegitimate offspring of a mangy she-camel! Eater of dogs! Wallower in carrion!" And then, with hardly a break: "Allah, All-Merciful, All-Compassionate! Have mercy on Thy servant! I swear by the beard of Thy holy Prophet that I will attend more closely to my duties to Thee if Thou wilt get me loose from this ill-begotten monstrosity! Help me or I perish!" The last words were a wail.

"I'm coming!" boomed Jayjay in the same tongue. "Save they strength!"

There was silence from the control room as Jayjay clambered on down the stairwell. Fortunately, the steps had been built so that it was possible to use them from either side, no matter which way the gravity pull happened to be. By the time he reached the control room, he weighed a good fifteen pounds.

Captain Atef al-Amin was staring up at the stairs as Jayjay came down. He was jammed tightly into a space between two of the big control cabinets, hanging head downward and looking more disheveled than Jayjay had ever seen the usually immaculately-uniformed captain.

"Oh," said Captain Al-Amin, in English, "it's you. For a moment I thought—" Then he waved his free hand. "Never mind. Can you get me out of here?"

What had been the floor of the control room was now the ceiling. The two steel cabinets which housed parts of the computer unit now appeared to be bolted to the ceiling. They were only about five feet high, and the space between them was far too narrow for a man to have got in there by himself—especially a man of the captain's build. None the less, he was in there—jammed in up to his waist. Only his upper torso and one arm was free. The other arm was jammed in against the wall.

Jayjay took a leap from the stairs and grabbed on to the chair that hung from the ceiling nearby. When you only weigh fifteen pounds, you can make Tarzan look like an amateur.

"You hurt?" he asked.

"It isn't comfortable, sure as hell," said Al-Amin. "I think my arm's broken. Think you can get me loose?"

"I can try. Give me your hand." Jayjay took the captain's free hand and gave it a tug. Then he released the chair he was holding, braced both feet against the panels of the computer housings, and gave a good pull. The captain didn't budge, but he winced a little.

"That hurt?"

"Just my arm. The pressure has cut off my blood circulation; my legs are numb, and I can't tell if they hurt or not."

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Jayjay grabbed the chair again and surveyed the situation. "Where's your First Officer?"

"Breckner? Down in the engine room."

Jayjay didn't comment on that. If the hold was airless, it was likely that the engine room was, too, and there was no need to worry Al-Amin any more than necessary just now.

"Can you use a cutting torch?" the captain asked.

"Yes, but I don't think it'll be necessary," Jayjay said. "Hold on a minute." He went back up the stairs to the officers' washroom and, after a little search, got a container of liquid soap from the supplies. Then he went back down to the control room. He made the jump to the chair, holding on with one hand while he held the container of soap with the other.

"Can you hold me up with one hand? I'll need both hands to work with."

"In this gravity? Easy. Give me your belt."

Captain Atef Al-Amin grabbed Jayjay's belt and hung on, while Jayjay used both hands to squirt the liquid soap all over the captain from the waist down.

It would have made a great newspaper photo. Captain Al-Amin, wedged between two steel cabinets, hanging upside-down under a pull of one-fifteenth standard gee, holding up his rescuer by the belt. The rescuer, right-side-up, was squeezing a plastic container of liquid soap and directing the stream against the captain.

When Al-Amin was thoroughly wetted with the solution, Jayjay again braced his feet against the steel panels and pulled.

With a slick, slurping sound, the captain slid loose, and the two of them toppled head-over-heels across the room. Jayjay was prepared for that; he stopped them both by grasping an overhead desk-top as they went by. Then he let go, and the two men dropped slowly to what had been the ceiling.

"Hoo!" said the captain. "That's a relief! Allah!"

Jayjay took a look at the man's arm. "Radius might be broken; ulna seems O.K. We'll splint it later. Your legs are going to tingle like crazy when the feeling comes back."

"I know. But we have other things to worry about, Mr. Kelvin. Evidently you and I are the only ones awake so far, and I'm in no condition to go moving all over this spinning bucket just yet. Would you do some reconnoitering for me?"

"Sure," said Jayjay. "Just tell me what you want."

Within half an hour, the news was in.

There were five men alive in the ship: Jayjay, Captain Al-Amin, Jeffry Hull, Second Officer Vanderbosch, and Maintenance Officer Smith. Vandenbosch had broken both legs and had to be strapped into a bunk and given a shot of narcolene.

Jayjay had put on a spacesuit and taken a look outside. The whole rear end of the ship was gone, and with it

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had gone the First Officer, the Radio Officer, and the Engineering Officer. And, of course, the main power plant of the ship.

Most of the cargo hold was intact, but the walls had been breached, and the air was gone.

"Well, that's that," said Captain Al-Amin. Jayjay, Smith, Hull, and the captain were in the control room, trying not to look glum. "I wish I knew what happened."

"Meteor," Jayjay said flatly. "The bumper hull is fused at the edges of the break, and the direction of motion was inward."

"I don't see how it could have got by the meteor detectors," said Smith, a lean, sad-looking man with a badly bruised face.

"I don't either," the captain said, "but it must have. If the engines had blown, the damage would have been quite different."

Jeffry Hull nervously took a cigarette from his pocket pack. His nose had quit bleeding, but his eye was purpling rapidly and was almost swollen shut.

Captain Al-Amin leaned over and gently took the cigarette from Hull's fingers. "No smoking, I'm afraid. We'll have to conserve oxygen."

"You guys are so damn *calm!*" Hull said. His voice betrayed a surface of anger covering a substratum of fear. "Here we are, heading away from the Solar System at eighteen million miles an hour, and you all act as if we were going on a picnic or something."

The observation was hardly accurate. Any group of men who went on a picnic in the frame of mind that Jayjay and the others were in would have produced the gloomiest outing since the Noah family took a trip in an excursion boat.

"There's nothing to worry about," Captain Al-Amin said gently. "All we have to do is set the screamers going, and the Interplanetary Police will pick us up."

"Screamers?" Hull looked puzzled.

Instead of answering the implied question, the captain looked at Smith. "Have you checked them?" He knew that Smith had, but he was trying to quiet Hull's fears.

Smith nodded. "They're O.K." He looked at Hull. "A screamer is an emergency radio. There's one in every compartment. You've seen them." He pointed across the room, toward a red panel in the wall. "In there."

"But I thought it was impossible for a spaceship in flight to contact a planet by radio," Hull objected.

"Normally, it is," Smith admitted. "It takes too much power and too tight a beam to get much intelligence over a distance that great from a moving ship. But the screamers are set up for emergency purposes. They're like flares, except that they operate on microwave frequencies instead of visible light.

"The big radio telescopes on Luna and on the Jovian satellites can pick them up if we beam them sunward, and the Plutonian station can pick us up if we beam in that direction."

Hull looked much calmer. "But

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where do you get the power if the engines are gone? Surely the emergency batteries won't supply that kind of power."

"Of course not. Each screamer has its own power supply. It's a hydrogen-oxygen fuel cell that generates a hell of a burst of power for about thirty minutes before it burns out from the overload. It's meant to be used only once, but it does the job."

"How do they know where to find us from a burst like that?" Hull asked.

"Well, suppose we only had one screamer. We'd beam it toward Pluto, since it would be easier for an IP ship to get to us from there. Since all screamers have the same frequency—don't ask me what it is; I'm not a radio man—the velocity of our ship will be indicated by the Doppler Effect. That is, our motion toward or away from them can be calculated that way. Our angular velocity with respect to them can be checked while the screamer is going; they will know which direction we're moving, if we're moving at an angle.

"With that information, all they have to do is find out which ship is in that general area of the sky, which they can find out by checking the schedule, and they can estimate approximately where we'll be. The IP ship will come out, and when they get in the general vicinity, they can find us with their meteor detectors. Nothing to it."

"And," Captain Al-Amin added, "since we have eight screamers still left with us, we have plenty of reserves to call upon. There's nothing to worry about, Mr. Hull."

"But how can you aim a beam when we're toppling end-over-end like this?" Hull asked.

"Well, if we couldn't stop the rotation," said the captain, "we'd broadcast instead of beaming. Anywhere within the Solar System, a screamer can broadcast enough energy to overcome the background noise.

"The IP would have a harder time finding us, of course, but we'd be saved eventually."

"I see," said Hull. "How do we go about stopping the rotation?"

"That's the next thing on the agenda," Al-Amin said. "This seasick roll is caused by the unevenness of the load, and I'm pretty sick of it, myself. Smith, will you and Mr. Kelvin get out the emergency rockets? We'll see what we can do to stabilize our platform."

It took better than an hour to get the ship straightened out. For the main job, emergency rockets were set off at the appropriate spots around the hull to counteract the rotation. The final trimming was done with carbon dioxide fire extinguishers, which Smith and Jayjay Kelvin used as jets.

Getting a fix on Pluto was easy enough; the lighthouse station at Styx broadcast a strong beep sunward every ten seconds. They could also pick up the radio lighthouses on Eros, Ceres, Luna, and Mimas. Evidently, the one on Titan was behind the Jovian bulk.

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They were ready to send their distress call.

"It's simple," Smith said as he opened the red panel in the wall of the control room. "First we turn on the receiver." He pushed a button marked *R*. "Then we turn these two wheels here until the pip on that little screen is centered. That's the signal from Pluto. It comes in strong every ten seconds, see?"

Jayjay watched with interest. He'd heard about screamers and had seen them, but he'd never had the opportunity of observing one in action.

Like flares or bombs, they were intended for one-time use. The instructions were printed plainly on the inside of the red door, and Smith was simply reading off what was printed there.

"These wheels," he was saying, "line up the parabolic reflector with the Pluto signal, you see. There. Now we've got it centered. Now, all we have to do is make one small connection and we're all set. These things are built so that they're foolproof; a kid could operate it. Watch."

Facing each other across a small gap were a pair of tapered screw plugs, one male and one female. The male was an average of half an inch in diameter; the female was larger and bored to fit the male.

"The female plug," Smith said, "leads to two tanks of high-pressure gas inside this cabinet on the left. One tank of oxygen, one of hydrogen. See how this male plug telescopes out to fit into the female? All we have to do is thread them together, and everything is automatic."

Jayjay was aware that Smith's explanations were meant to give Jeffry Hull something to think about instead of his fears. Hull was basically an Earth-hugger, and free fall did nothing to keep him calm. Evidently his subconscious knew that he had to latch on to something to keep his mental equilibrium, because he showed a tremendous amount of interest in what should have been a routine operation.

"How do you mean, it's all automatic?" he asked. "What happens?"

"Well, you can't see into the female plug, but look here at the male. See those concentric tubes leading into the interior of the cabinet on the right? The outer one leads in the oxygen, the inner leads in the hydrogen. We need twice as much hydrogen as oxygen, so the inner tube has twice the volume delivery as the outer. See?"

"Yes. But what is the solid silver bar in the center of the inner tube?"

"That's the electrical connection for the starter battery. There's a small, short-lived chemical battery, like the ones in an ordinary pocket radio, except that they're built to deliver a high-voltage, high-amperage current for about a tenth of a second. That activates the H-O cell, you see. Also, that silver stud depresses the corresponding stud in the female plug, which turns on the gas flow before it makes the connection with the starter battery. Follow?"

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Hull didn't look as though he did, but he nodded gamely. "Then what happens?"

"Then the hydrogen and the oxygen come together in the fuel cell and, instead of generating heat, they generate electric current. That current is fed into the radio unit, and the signal is sent to Pluto. Real simple."

"I see," Hull said. "Well . . . go ahead."

Smith telescoped the two leads together and began turning the collar on the female plug.

He screwed it up as far as it would go.

And nothing happened.

"What the hell?" asked Smith of no one in particular. He tried to twist it a little harder. Nothing happened. The threads had gone as far as they would go.

"What's the matter?" Jayjay asked.

"Damfino. No connection. Nothing's happening. And it's as tight as it will go"

"Are the gases flowing?" Jayjay asked.

"I don't know. These things aren't equipped with meters. They're supposed to work automatically."

Jayjay pushed Smith aside. "Let me take a look."

Smith frowned as though he resented an ordinary passenger shoving him around, but Jayjay ignored him. He cocked his head to one side and looked at the connection. "Hmm-m-m." He touched it with a finger. Then he wet the finger with his tongue and touched the connection again. "There's no gas flow, Smith."

"How do you know?" Smith was still frowning.

"There's a gap there. That tapered thread isn't in tight. If there were any gas flowing, it would be leaking out." Before Smith could say anything Jayjay began unscrewing the coupling. When it came apart, it looked just the same as it had before Smith had put it together.

In the dim glow from the emergency lights, it was difficult to see anything.

"Got an electric torch?" Jayjay asked.

Smith pushed himself away from the screamer panel and came back after a moment with a flashlight. "Let me take a look," he said, edging Jayjay aside. He looked over the halves of the coupling very carefully, then said: "I don't see anything wrong. I'll try it again."

"Hold it just a second," Jayjay said quietly. "Let me take a look, will you?"

Smith handed him the torch. "Go ahead, but there's nothing wrong."

Jayjay took the light and looked the connections over again. Then he screwed his head around so that he could look into the female plug.

"Hm-m-m. Hard to count. Gap's too small. Anybody got a toothpick?"

Nobody did.

Jayjay turned to Jeffry Hull. "Mr. Hull, would you mind going to the lounge? I think there's some toothpicks in the snack refrigerator."

"Sure," said Hull. "Sure."

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He pushed himself across the control room and disappeared through the stairwell.

"Get several of them," Jayjay called after him.

Captain Al-Amin said: "What's the trouble, Mr. Kelvin?"

"I'm not sure yet," Jayjay answered. "When did you last have the screamer units inspected?"

"Just before we took off from Jove Station," Al-Amin said. "That's the law. All emergency equipment has to be checked before takeoff. Why? What's the matter?"

"Did they check this unit?" Jayjay asked doggedly.

"Certainly! I watched them check it, myself. I—" He brought himself up short and said: "Give me that torch, will you? I want to take a look at the thing."

Jayjay handed him the flashlight and grasped the captain's belt. With one arm in a splint, Al-Amin couldn't hold the flashlight and hold on to anything solid at the same time.

"I don't see anything wrong," he said after a minute.

"Neither do I," Jayjay admitted. "But the way it acts—"

"I got the toothpicks!" Jeffry Hull propelled himself across the room toward the three men who were clustered around the screamer.

Jayjay took the toothpicks, selected one, and inserted it into the female plug. "Hard to see those threads with all the tubes blocking that plug," he said offhandedly.

Hull said: "Captain, did you know that the refrigerator is off?"

"Yes," said Atef Al-Amin absently. "It isn't connected to the emergency circuits. Wastes too much energy. What do you find, Mr. Kelvin?"

After a second's silence, Jayjay said: "Let me check once more." He was running the tip of the toothpick across the threads in the female plug, counting as he did so. "Uh-huh," he said finally, "just as I thought. There's one less thread in the female plug. The male plug is stopped before it can make contact. There's a gap of about a tenth of an inch when the coupling is screwed up tight."

"Let me see," Smith said. He took the toothpick and went through the same operation. "You're right," he said ruefully, "the female plug is faulty. We'll have to use one of the other screamers."

"Right," said Jayjay.

Wrong, said Fate. Or the Powers That Be, or the Fallibility of Man, whatever you want to call it.

Every screamer unit suffered from the same defect.

"I don't understand it!" A pause. "It's impossible! Those units were tested!"

For the first time in his life, Captain Atef Abdullah Al-Amin allowed his voice to betray him.

Arabic is normally spoken about half an octave above the normal tone used for English. And, unlike American English, it tends to waver up and down the scale. Usually, the captain spoke English in the flat, unaccented tones of the Midwest Amer-

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ican accent, and spoke Arabic in the ululating tones of the Egyptian.

But now he was speaking English with an Egyptian waver, not realizing that he was doing it.

"How could it happen? It's ridiculous!"

The captain, his maintenance officer, and Jeffry Hull were clustered around the screamer unit in the lounge. Off to one side, Jayjay Kelvin held a deck of cards in his hands and played a game of patience called "transportation solitaire." His eyes didn't miss a play, just as his ears didn't miss a word.

He pulled an ace from the back of the deck and flipped it to the front.

"You said the screamers had been checked," Jeffry Hull said accusingly. "How come they *weren't* checked?"

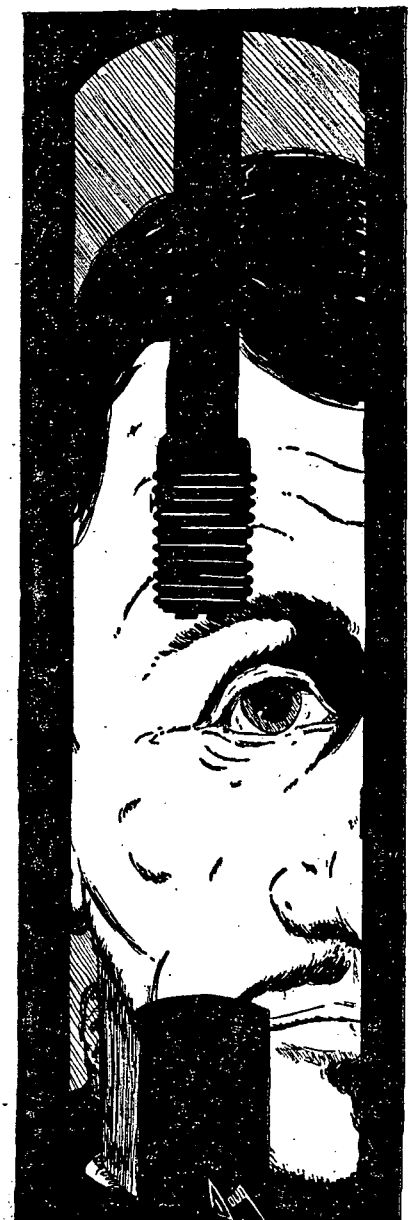
"They *were!*" Al-Amin said sharply.

"Sure they were," Smith added. "I watched the check-off. There was nothing wrong then."

"Meanwhile," Hull said, the acid bite of fear in his voice, "we have to sit here and wait for the Interplanetary Police to find us by pure luck."

The captain should have let Hull cling to the idea that the IP could find the *Persephone,* even if no signal was sent. But the captain was almost as angry and flustered as Hull was.

"Find us?" he snapped. "Don't be ridiculous! We won't even be missed until we're due at Styx, on Pluto, nine days from now. By that time, we'll be close to two billion miles beyond the orbit of Pluto. We'll never be found if we wait 'til then. Some-



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thing has to be done *now!*" He looked at his Maintenance Officer. "Smith, isn't there some way to make contact between those two plugs?"

"Sure," Smith said bitterly. "If we had the tools, it would be duck soup. All we'd have to do is trim down the male plug to fit the female, and we'd have it. But we don't have the tools. We've got a couple of files and a quarter-horsepower electric drill with one bit. Everything else was in the tool compartment—which is long gone, with the engine room."

"Can't you . . . uh, what do you call it? Uh . . . jury-something—" Hull's voice sounded as though he were forcing it to be calm.

"Jury-rig?" Smith said. "Yeah? With what? Dammit, we haven't got any tools, and we haven't got any materials to work with!"

"Can't you just use a wrench to tighten them more?" Hull asked helplessly.

Smith said a dirty word and pushed himself away from the screamer unit to glower at an unresisting wall.

"No, Mr. Hull, we couldn't," said Captain Al-Amin with restrained patience. "That would strip the threads. If the electrical contact were made at the same time, the high-pressure oxygen-hydrogen flow would spark off, and we'd get a big explosion that would wreck everything—including us." Then he muttered to himself: "I still don't see how it could happen."

Jayjay Kelvin pulled a nine of spades from the back of the deck to the front. It matched the four of spades that had come three cards before. Jayjay discarded the two cards between the spades. "You don't?" he asked. "Didn't you ever hear that the total is greater than the sum of its parts?"

"What?" Captain Al-Amin sounded as though he'd been insulted—in Arabic. "What are you talking about, Mr. Kelvin?"

"I'm talking about the idiocy of the checking system," Jayjay said flatly. "Don't you see what they did? Don't you see what happened? Each part of a screamer has to be checked separately, right?"

Al-Amin nodded.

"Why? Because the things burn out if you check them as a complete unit. It's like checking a .50 caliber cartridge. The only way you can check a cartridge is to shoot it in a gun. If it works, then you know it works. Period. The only trouble is that you've wasted the cartridge. You know that *that* one is good, but you've ruined it.

"Same way with a screamer. If you test it as a unit, you'll ruin it. So you test it a part at a time. All the parts check out nicely because the test mechanisms are built to check each part."

Smith squinted. "Well, sure. If you check out the whole screamer, you'll ruin it. So what?"

"So suppose you were going to check out a cartridge," Jayjay said. "You don't fire it; you check each part separately. You check the brass case. It's all right; the tests show that it won't burst under firing pressure. You check the primer; the tests show

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that it will explode when hit by the gun's hammer. You check the powder; the tests show that the powder will burn nicely when the flame from the primer hits it. You check the bullet; the tests show that the slug will be expelled at the proper velocity when the powder is ignited.

"So you assume that the cartridge will function when fired.

"But will it?"

"Why wouldn't it?" Smith asked.

"Because the flame from the exploding primer can't reach the powder, that's why!" Jayjay snapped. "Some jerk has re-designed the primer so that the flame misses the propellant!"

"How could that happen?" Hull asked blankly.

"How? Because Designer *A* decided that the male plug on a screamer should have one more turn on its threads, but he forgot to tell Designer *B*, who designs the female plug, that the two should match. The testing equipment is designed to test each part, so each part tests out fine. The only trouble is that the thing doesn't test out as a whole."

Captain Al-Amin nodded slowly. "That's right. The test showed that the oxyhydrogen section worked fine. It showed that the starter worked fine. It showed that the radiowave broadcaster worked fine. But it didn't show that they'd work together."

Smith said a short, five-letter word. It was French; the Anglo-Saxon equivalent has only four letters. "What good does all this theorizing do us?" he added. "The question is: How do we fix the thing?"

"Well, can't you put another turn on the thread?" Hull asked.

"Oh, sure," Smith said sarcastically. "You give me a lathe and the proper tools, and I'll make you all the connections you want. Hell, if I had the proper tools, I could turn us out a new spaceship, and we could all go home in comfort."

"Couldn't you drill out the metal with that drill?" Hull asked plaintively.

"No!" Smith said harshly. "How do you expect me to get a quarter-inch bit into a space less than a sixteenth of an inch in diameter?"

Hull wasn't used to machinist's terms. "How big is an inch?"

"Two point five four oh oh oh five centimeters," Smith said in a nasty tone of voice. "Does that help you any?"

"I'm just trying to help!" Hull snapped. "You've got no call to get sarcastic with me!"

Smith said the French word again.

"Enough!" the captain barked. "Smith, control your tongue! That sort of thing won't help us." He jerked his head around. "Mr. Kelvin, do you have any suggestions?"

Jayjay played another card. "No. Not yet. I'm thinking."

"Smith? Any ideas?" The tone of the Arab's voice left no doubt that he meant business.

"No, sir. Without a properly equipped machine shop, there's nothing we can do."

"How so?"

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"Because that's a precision job, sir. The threads are tapered so that the fit will be gas-tight. That's why the threads have a ten-thousandth of an inch of soft polyethylene covering the hard steel, so that when the threads are tight, the polyethylene will act as a seal. Everything in that connection is a precision fitted job. The ends of the tubes are made to be slightly mashed together, so that the seals will be tight—they're coated with polyethylene, too. If the oxygen and hydrogen mix, the efficiency of the fuel cell goes down to zero, and you run the chance of an explosion."

"Show me," Al-Amin said.

Smith took a pencil out of his pocket and began drawing a cross section of the connection on the top of the nearby table.

"Look here, captain; this is the way the two are supposed to fit. But they don't, because the male plug can't get far enough into the female socket to make the connection. Like this, see?"

The captain nodded.

"Well," Smith continued, "there's a thirty-second of an inch clearance there. If the female had one more turn of thread, the fit would be perfect. As it is, we get no connection. So the screamer doesn't function."

Al-Amin looked at the drawing. "Odd that there's never been any complaint about this error before."

Jayjay turned another ace. "Not so odd, really."

All heads turned toward Jayjay.

"What does that mean?" Smith asked.

"Just what I said." Jayjay turned another card. "A screamer is supposed to call for help, isn't it? It's only used in a dire emergency. Then the only test of the whole unit comes when the occupants of the spaceship are in danger—as we are. If the things don't work, how could there be any complaint? If we can't get ours to work, will we complain? To whom?

"How many ships have been reported missing in the past year or so? All of them presumed lost because of meteor strikes, eh? If a ship is lost and doesn't signal, we presume that it was totally destroyed. If it wasn't, they'd have signaled. As *Mister* Smith says: See?"

There was a long silence.

Jayjay Kelvin turned the last card, saw that he had lost, and began shuffling the deck.

"I think I've got it," Smith said excitedly, several hours later.

Captain Al-Amin glanced around. Hull was dozing fitfully a few inches above the couch. Jayjay Kelvin was still methodically playing solitaire.

"Keep your voice down," the captain ordered. "No use giving our passengers false hopes. What do you mean, you've got it?"

"Simple. Real simple. All we have to do is file off the last thread of the male plug. Then it will fit into the female." Smith's voice was a hoarse whisper.

"Won't work," said Jayjay Kelvin from across the room.

Smith blew up. "How do you

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know?" he roared. "You sit over there making wiseacre remarks and do nothing! Play cards, that's all! What do you know about things like this, *Mister* Joseph Kelvin? What does a businessman know about mechanical equipment?"

"Enough," Jayjay said quietly. "Enough to know that, if you try to file off the final thread of the male plug, you'll do an uneven job. And that will mean leakage."

"What do you mean, an uneven job?" Smith was still furious.

"Trimming off the end of the male plug would have to be done on a lathe," Jayjay said, without looking up from his cards. "Otherwise, the fit would be wrong, and the gases would mix. And we would all go *phfft!* when the mixture blew."

Smith started to say something, but Jayjay went right on talking. "Even if we had a lathe, the male plug doesn't turn, so you'd be out of luck all the way. You can't take the screamers apart without wrecking them—not without a machine shop. You're going to have to work on that female connection. She's got a sleeve on her that will turn. Now, if—" Jayjay's voice faded off into silence, and his manipulations of the cards became purely mechanical.

"Huh!" Smith said softly. "Just because he's related to Kelvin Associates, he thinks he's hot—" He said the French word again.

"Is he right?" Captain Al-Amin asked sharply.

"Well—" Smith rubbed his nose with a forefinger. "Well, yes. I was wrong. We can't do it with a file. It would have to be turned on a lathe, and we don't have a lathe. And we don't have any measuring instruments, either. This is a precision job, as I said. And we don't have a common ruler aboard, much less a micrometer. Any makeshift job will be a failure."

Captain Al-Amin brooded over that for a moment. Then he looked at Jayjay again. "Mr. Kelvin."

"Yes, captain?" Jayjay didn't look up from the cards in his hands.

"*Are* you related to Kelvin Associates?"

"In a way."

Al-Amin bit at his lower lip. "Mr. Kelvin, you registered aboard this ship as Joseph Kelvin. May I ask if your middle name is James?"

After a short pause, Jayjay said: "Yes. It is."

"Are you *the* J. J. Kelvin?"

"Yup. But I'd rather you didn't mention it when we get to Pluto."

Smith's jaw had slowly sagged during that conversation. Then he closed his mouth with a snap. "You're Jayjay Kelvin?" he asked, opening his mouth again.

"That's right."

"Then I apologize."

"Accepted," said Jayjay. He wished that Smith hadn't apologized.

"Why didn't you say so in the first place?" Captain Al-Amin asked.

"Because I didn't want it known that I was going to Pluto," Kelvin said. "And—after the accident happened—I kept quiet because I know human nature."

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Jeffry Hull, who had awakened during the argument, looked at Jayjay and said: "What's human nature got to do with it, Mr. Kelvin?"

"Nothing, except that if I'd told everyone I was J. J. Kelvin, all of you would have been sitting around waiting for me to solve the problem instead of thinking about it yourselves."

Hull nodded thoughtfully. "It makes sense, Mr. Kelvin. If they'd known that you were . . . well . . . Mister Spaceship Himself, they'd have let you do all the thinking .And that would have left you high and dry, wouldn't it?"

Jayjay put the deck of cards in his pocket. "You're a pretty good sociologist, after all, Mr. Hull. You're right. Face any group with Authority —with a capital *A*—and they quit thinking for themselves. And if they do, then the poor slob of an Authority doesn't have anything to tickle his own brains, so everybody loses."

"Well, *do* you have an answer?" Captain Al-Amin asked.

Jayjay shook his head. "Not yet. I think I've got one coming up, but I wish you two would go on talking while I think."

"I'll try," Smith said wryly.

The problem was both simple and complex. The female socket lacked one single turn of thread to make a perfect connection. A few hundredths of an inch separated success from disaster.

Five men, including the unconscious Vandenbosch, were only a fraction of an inch away from death.

Jayjay Kelvin listened to Smith talk for another half hour, throwing in objections when necessary, but offering no opinions.

"All we have to do," Smith said at last, "*is* get rid of that little bit of metal beyond the thread in the female socket. But there's no way to get it out. We can't use a chisel because the force would warp the threads. Besides, we couldn't get a chisel in there."

"And we don't have a chisel," Captain Al-Amin added. "We don't have any tools at all."

"Except," said Jayjay, "an electric hand drill and a quarter-inch bit."

"Well, sure," said Smith. "But what good will that do us?"

"If we rigged a belt between the drill's motor and the sleeve of the female socket, the sleeve would rotate as if it were on a lathe, wouldn't it?"

Smith blinked. "Sure. Yeah! Hey!" His face brightened. Then it looked sad again. "But what good would that do us?"

"You said that all we have between us and success is a fraction of an inch of metal. If we can remove that fraction of an inch, we're successful."

"But how can you put a thread into that socket?" Smith asked.

Jayjay beamed as though it were his birthday. "We don't have to put a thread in there. All we have to do is give the thread on the male plug room to move in. All we have to do is clear away that metal. So we'll

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use the drill motor to turn the sleeve as if it were on a lathe."

Smith still didn't look enthusiastic. "All right. We have a lathe. But what are we going to use for tools? What are we going to cut the metal with?"

Jayjay's smile became broader. "Carbon steel. What else?"

"Oh?" said Smith. "And where do we get these tools, Mr. Kelvin? From the circumambient ether?"

"Not at all," said Jayjay. "Did you ever chip flint?"

"What?"

"Never mind. All we have to do is use that quarter-inch bit."

Smith still looked confused. "I don't get it. A bit that big won't fit in."

"We simply crack a piece off that hard carbon steel," Jayjay said. "We can make a lathe tool that will fit into the small space between the inner and outer tubes. The fractured edge will be sharp enough to take out the excess metal. The male plug can move in, and we'll have contact."

"Well, I'll be—" Smith used another French word.

Captain Atef Al-Amin cast his eyes upwards. *"Creatio ex nihilo,"* he said softly.

When the Interplanetary Police ship took the five men and the cargo from the wreck of the *Persephone*, the major in command of the ship, who knew that he had rescued the great J. J. Kelvin, asked him: "Mr. Kelvin, what do you plan to do when you return to Ceres City?"

And Jayjay, who knew that both he and the major were speaking for the newsfacs and for posterity, said:

"I'm going to make sure that Kelvin Associates learns to make emergency equipment properly. We will never again put faulty equipment aboard a ship."

The major looked perplexed. "What?"

"I'm going to have some designer's head!" said Jayjay Kelvin.

THE END

continued from page 69

On the May, 1961 issue, reader votes came out:

PLACE	STORY	AUTHOR	POINTS
1.	The Fisherman (Pt 2.)	Clifford D. Simak	2.03
2.	Gone Fishing	James H. Schmitz	2.38
3.	Identification	Christopher Anvil	2.74
4.	Death And The Senator	Arthur C. Clarke	2.93
5.	Join Our Gang?	Sterling E. Lanier	4.28

And that means that Cliff Simak gets a bonus of about $200—a very solid form of "thanks!" from you readers. Jim Schmitz gets about $80—earned as an author wants to earn his money; by satisfying the readers.

The Editor.

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LOST . . . IN TRANSLATION

By LARRY M. HARRIS

In language translation, you may get a literally accurate word-for-word translation . . . but miss the meaning entirely. And in space-type translation . . . the effect may be the same!

Illustrated by Schoenherr

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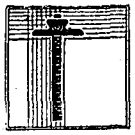

HE CELL had been put together more efficiently than any Korvin had ever been in. But that was only natural, he told himself sadly; the Tr'en were an efficient people. All the preliminary reports had agreed on that; their efficiency, as a matter of fact, was what had made Korvin's arrival a necessity. They were well into the atomic era, and were on the verge of developing space travel. Before long they'd be settling the other planets of their system, and then the nearer stars. Faster-than-light travel couldn't be far away, for the magnificently efficient physical scientists of the Tr'en—and that would mean, in the ordinary course of events, an invitation to join the Comity of Planets.

An invitation, the Comity was sure, which the Tr'en would not accept.

Korvin stretched out on the cell's single bunk, a rigid affair which was hardly meant for comfort, and sighed. He'd had three days of isolation, with nothing to do but explore the resources of his own mind. He'd tried some of the ancient Rhine experiments, but that was no good; he still didn't show any particular psi talents. He couldn't unlock the cell door with his unaided mind; he couldn't even alter the probability of a single dust-mote's Brownian path through the somewhat smelly air. Nor could he disappear from his cell and appear, as if by magic, several miles away near the slightly-damaged hulk of his ship, to the wonder and amazement of his Tr'en captors.

He could do, as a matter of fact, precisely nothing. He wished quietly that the Tr'en had seen fit to give him a pack of cards, or a book, or even a folder of tourist pictures. The Wonders of Tr'en, according to all the advance reports, were likely to be pretty boring, but they'd have been better than nothing.

In any decently-run jail, he told himself with indignation, there would at least have been other prisoners to talk to. But on Tr'en Korvin was all alone.

True, every night the guards came in and gave him a concentrated lesson in the local language, but Korvin failed to get much pleasure out of that, being unconscious at the time. But now he was equipped to discuss almost anything from philosophy to plumbing, but there was nobody to discuss it with. He changed position on the bunk and stared at the walls. The Tr'en were efficient; there weren't even any imperfections in the smooth surface to distract him.

He wasn't tired and he wasn't hungry; his captors had left him with a full stock of food concentrates.

But he *was* almightily bored, and about ready to tell anything to anyone, just for the chance at a little conversation.

As he reached this dismal conclusion, the cell door opened. Korvin got up off the bunk in a hurry and spun around to face his visitor.

The Tr'en was tall, and slightly green.

He looked, as all the Tr'en did, vaguely humanoid—that is, if you

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don't bother to examine him closely. Life in the universe appeared to be rigidly limited to humanoid types on oxygen planets; Korvin didn't know why, and neither did anybody else. There were a lot of theories, but none that accounted for all the facts satisfactorily. Korvin really didn't care about it; it was none of his business.

The Tr'en regarded him narrowly through catlike pupils. "You are Korvin," he said.

It was a ritual, Korvin had learned. "You are of the Tr'en," he replied. The green being nodded.

"I am Didyak of the Tr'en," he said. Amenities over with, he relaxed slightly—but no more than slightly—and came into the cell, closing the door behind him. Korvin thought of jumping the Tr'en, but decided quickly against it. He was a captive, and it was unwise to assume that his captors had no more resources than the ones he saw: a small translucent pistollike affair in a holster at the Tr'en's side, and a small knife in a sheath at the belt. Those Korvin could deal with; but there might be almost anything else hidden and ready to fire on him.

"What do you want with me?" Korvin said. The Tr'en speech—apparently there was only one language on the planet—was stiff and slightly awkward, but easily enough learned under drug hypnosis; it was the most rigorously logical construction of its kind Korvin had ever come across. It reminded him of some of the mathematical metalanguages he'd dealt with back on Earth, in training; but it was more closely and carefully constructed than even those marvels.

"I want nothing with you," Didyak said, leaning against the doorframe. "You have other questions?"

Korvin sighed. "What are you doing here, then?" he asked. As conversation, it wasn't very choice; but it was, he admitted, better than solitude.

"I am leaning against the door," Didyak said. The Tr'en literalist approach to the smallest problems of everyday living was a little hard to get the hang of, Korvin told himself bitterly. He thought for a second.

"Why did you come to me?" he said at last.

Didyak beamed at him. The sight was remarkably unpleasant, involving as it did the disclosure of the Tr'en fifty-eight teeth, mostly pointed. Korvin stared back impassively. "I have been ordered to come to you," Didyak said, "by the Ruler. The Ruler wishes to talk with you."

It wasn't quite "talk"; that was a general word in the Tr'en language, and Didyak had used a specific meaning, roughly: "gain information from, by peaceful and vocal means." Korvin filed it away for future reference. "Why did the Ruler not come to me?" Korvin asked.

"The Ruler is the Ruler," Didyak said, slightly discomfited. "You are to go to him. Such is his command."

Korvin shrugged, sighed and smoothed back his hair. "I obey the command of the Ruler," he said—another ritual. Everybody obeyed the command of the Ruler. If you didn't,

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you never had a second chance to try.

But Korvin meant exactly what he'd said. He was going to obey the commands of the Ruler of the Tr'en —and remove the Tr'en threat from the rest of the galaxy forever.

That, after all, was his job.

The Room of the Ruler was large, square and excessively brown. The walls were dark-brown, the furnishings—a single great chair, several kneeling-benches and a small table near the chair—were light-brown, of some metallic substance, and even the drapes were tan. It was, Korvin decided, much too much of a bad idea, even when the color contrast of the Tr'en themselves were figured in.

The Ruler himself, a Tr'en over seven feet tall and correspondingly broad, sat in the great chair, his four fingers tapping gently on the table near him, staring at Korvin and his guards. The guards stood on either side of their captive, looking as impassive as jade statues, six and a half feet high.

Korvin wasn't attempting to escape. He wasn't pleading with the Ruler. He wasn't defying the Ruler, either. He was just answering questions.

The Tr'en liked to have everything clear. They were a logical race. The Ruler had started with Korvin's race, his name, his sex—if any—and whether or not his appearance were normal for humanity.

Korvin was answering the last question. "Some men are larger than I am," he said, "and some are smaller."

"Within what limits?"

Korvin shrugged. "Some are over eight feet tall," he said, "and others under four feet." He used the Tr'en measurement scale, of course; it didn't seem necessary, though, to mention that both extremes of height were at the circus-freak level. "Then there is a group of humans," he went on, "who are never more than a foot and a half in height, and usually less than that—approximately nine or ten inches. We call these *children,*" he volunteered helpfully.

"Approximately?" the Ruler growled. "We ask for precision here," he said. "We are scientific men. We are exact."

Korvin nodded hurriedly. "Our race is more . . . more approximate," he said apologetically.

"Slipshod," the Ruler muttered.

"Undoubtedly," Korvin agreed politely. "I'll try to do the best I can for you."

"You will answer my questions," the Ruler said, "with exactitude." He paused, frowning slightly. "You landed your ship on this planet," he went on. "Why?"

"My job required it," Korvin said.

"A clumsy lie," the Ruler said. "The ship crashed; our examinations prove that beyond any doubt."

"True," Korvin said.

"And it is your job to crash your ship?" the Ruler said. "Wasteful."

Korvin shrugged again. "What I say is true," he announced. "Do you have tests for such matters?"

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"We do," the Ruler told him. "We are an exact and a scientific race. A machine for the testing of truth has been adjusted to your physiology. It will be attached to you."

Korvin looked around and saw it coming through the door, pushed by two technicians. It was large and squat and metallic, and it had wheels, dials, blinking lights, tubes and wires, and a seat with armrests and straps. It was obviously a form of lie-detector—and Korvin felt himself marveling again at this race. Earth science had nothing to match their enormous command of the physical universe; adapting a hypnopaedic language-course to an alien being so quickly had been wonder enough, but adapting the perilously delicate mechanisms that necessarily made up any lie-dector machinery was almost a miracle. The Tr'en, under other circumstances, would have been a valuable addition to the Comity of Nations.

Being what they were, though, they could only be a menace. And Korvin's appreciation of the size of that menace was growing hourly.

He hoped the lie-detector had been adjusted correctly. If it showed him telling an untruth, he wasn't likely to live long, and his job—not to mention the strongest personal inclinations—demanded most strongly that he stay alive.

He swallowed hard. But when the technicians forced him down into the seat, buckled straps around him, attached wires and electrodes and elastic bands to him at appropriate places and tightened some final screws, he made no resistance.

"We shall test the machine," the Ruler said. "In what room are you?"

"In the Room of the Ruler," Korvin said equably.

"Are you standing or sitting?"

"I am sitting," Korvin said.

"Are you a *chulad?*" the Ruler asked. A *chulad* was a small native pet, Korvin knew, something like a greatly magnified deathwatch beetle.

"I am not," he said.

The Ruler looked to his technicians for a signal, and nodded on receiving it. "You will tell an untruth now," he said. "Are you standing or sitting?"

"I am standing," Korvin said.

The technicians gave another signal. The Ruler looked, in his frowning manner, reasonably satisfied. "The machine," he announced, "has been adjusted satisfactorily to your physiology. The questioning will now continue."

Korvin swallowed again. The test hadn't really seemed extensive enough to him. But, after all, the Tr'en knew their business, better than anyone else could know it. They had the technique and the logic and the training.

He hoped they were right

The Ruler was frowning at him. Korvin did his best to look receptive. "Why did you land your ship on this planet?" the Ruler said.

"My job required it," Korvin said.

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The Ruler nodded. "Your job is to crash your ship," he said. "It is wasteful but the machines tell me it is true. Very well, then; we shall find out more about your job. Was the crash intentional?"

Korvin looked sober. "Yes," he said.

The Ruler blinked. "Very well," he said. "Was your job ended when the ship crashed?" The Tr'en word, of course, wasn't *ended,* nor did it mean exactly that. As nearly as Korvin could make out, it meant "disposed of for all time."

"No," he said.

"What else does your job entail?" the Ruler said.

Korvin decided to throw his first spoke into the wheel. "Staying alive."

The Ruler roared. "Do not waste time with the obvious!" he shouted. "Do not try to trick us; we are a logical and scientific race! Answer correctly."

"I have told the truth," Korvin said.

"But it is not—not the truth we want," the Ruler said.

Korvin shrugged. "I replied to your question," he said. "I did not know that there was more than one kind of truth. Surely the truth is the truth, just as the Ruler is the Ruler?"

"I—" The Ruler stopped himself in mid-roar. "You try to confuse the Ruler," he said at last, in an approximation of his usual one. "But the Ruler will not be confused. We have experts in matters of logic"—the Tr'en word seemed to mean *right-saying*—"who will advise the Ruler. They will be called."

Korvin's guards were standing around doing nothing of importance now that their captor was strapped down in the lie-detector. The Ruler gestured and they went out the door in a hurry.

The Ruler looked down at Korvin. "You will find that you cannot trick us," he said. "You will find that such fiddling"—*chulad-like* Korvin translated—"attempts will get you nowhere."

Korvin devoutly hoped so.

The experts in logic arrived shortly, and in no uncertain terms Korvin was given to understand that logical paradox was not going to confuse anybody on the planet. The barber who did, or didn't, shave himself, the secretary of the club whose members were secretaries, Achilles and the tortoise, and all the other lovely paradox-models scattered around were so much primer material for the Tr'en. "They can be treated mathematically," one of the experts, a small emerald-green being, told Korvin thinly. "Of course, *you* would not understand the mathematics. But that is not important. You need only understand that we cannot be confused by such means."

"Good," Korvin said.

The experts blinked. "Good?" he said.

"Naturally," Korvin said in a friendly tone.

The expert frowned horribly, showing all of his teeth. Korvin did his best not to react. "Your plan is a failure," the expert said, "and you call

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this a good thing. You can mean only that your plan is different from the one we are occupied with."

"True," Korvin said.

There was a short silence. The expert beamed. He examined the indicators of the lie-detector with great care. "What is your plan?" he said at last, in a conspiratorial whisper.

"To answer your questions, truthfully and logically," Korvin said.

The silence this time was even longer.

"The machine says that you tell the truth," the expert said at last, in a awed tone. "Thus, you must be a traitor to your native planet. You must want us to conquer your planet, and have come here secretly to aid us."

Korvin was very glad that wasn't a question. It was, after all, the only logical deduction.

But it happened to be wrong.

"The name of your planet is Earth?" the Ruler asked. A few minutes had passed; the experts were clustered around the single chair. Korvin was still strapped to the machine; a logical race makes use of a traitor, but a logical race does not trust him.

"Sometimes," Korvin said.

"It has other names?" the Ruler said.

"It has no name," Korvin said truthfully. The Tr'en idiom was like the Earthly one; and certainly a planet had no name. People attached names to it, that was all. It had none of its own.

"Yet you call it Earth?" the Ruler said.

"I do," Korvin said, "for convenience."

"Do you know its location?" the Ruler said.

"Not with exactitude," Korvin said.

There was a stir. "But you can find it again," the Ruler said.

"I can," Korvin said.

"And you will tell us about it?" the Ruler went on.

"I will," Korvin said, "so far as I am able."

"We will wish to know about weapons," the Ruler said, "and about plans and fortifications. But we must first know of the manner of decision on this planet. Is your planet joined with others in a government or does it exist alone?"

Korvin nearly smiled. "Both," he said.

A short silence was broken by one of the attendant experts. "We have theorized that an underling may be permitted to make some of his own decisions, leaving only the more extensive ones for the master. This seems to us inefficient and liable to error, yet it is a possible system. Is it the system you mean?"

Very sharp, Korvin told himself grimly. "It is," he said.

"Then the government which reigns over several planets is supreme," the Ruler said.

"It is," Korvin said.

"Who is it that governs?" the Ruler said.

The key question had, at last, been

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asked. Korvin felt grateful that the logical Tr'en had determined to begin from the beginning, instead of going off after details of armament first; it saved a lot of time.

"The answer to that question," Korvin said, "cannot be given to you."

"Any question of fact has an answer," the Ruler snapped. "A paradox is not involved here; a government exists, and some being is the governor. Perhaps several beings share this task; perhaps machines do the work. But where there is a government, there is a governor. Is this agreed?"

"Certainly," Korvin said. "It is completely obvious and true."

"The planet from which you come is part of a system of planets which are governed, you have said," the Ruler went on.

"True," Korvin said.

"Then there is a governor for this system," the Ruler said.

"True," Korvin said again.

The Ruler sighed gently. "Explain this governor to us," he said.

Korvin shrugged. "The explanation cannot be given to you."

The Ruler turned to a group of his experts and a short muttered conversation took place. At its end the Ruler turned his gaze back to Korvin. "Is the deficiency in you?" he said. "Are you in some way unable to describe this government?"

"It can be described," Korvin said.

"Then you will suffer unpleasant consequences if you describe it to us?" the Ruler went on.

"I will not," Korvin said.

It was the signal for another conference. With some satisfaction, Korvin noticed that the Tr'en were becoming slightly puzzled; they were no longer moving and speaking with calm assurance.

The plan was taking hold.

The Ruler had finished his conference. "You are attempting again to confuse us," he said.

Korvin shook his head earnestly. "I am attempting," he said, "not to confuse you."

"Then I ask for an answer," the Ruler said.

"I request that I be allowed to ask a question," Korvin said.

The Ruler hesitated, then nodded. "Ask it," he said. "We shall answer it if we see fit to do so."

Korvin tried to look grateful. "Well, then," he said, "what is your government?"

The Ruler beckoned to a heavy-set green being, who stepped forward from a knot of Tr'en, inclined his head in Korvin's direction, and began. "Our government is the only logical form of government," he said in a high, sweet tenor. "The Ruler orders all, and his subjects obey. In this way uniformity is gained, and this uniformity aids in the speed of possible action and in the weight of action. All Tr'en act instantly in the same manner. The Ruler is adopted by the previous Ruler; in this way we are assured of a common wisdom and a steady judgment."

"You have heard our government defined," the Ruler said. "Now, you will define yours for us."

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Korvin shook his head. "If you insist," he said, "I'll try it. But you won't understand it."

The Ruler frowned. "We shall understand," he said. "Begin. Who governs you?"

"None," Korvin said.

"But you are governed?"

Korvin nodded. "Yes."

"Then there is a governor," the Ruler insisted.

"True," Korvin said. "But everyone is the governor."

"Then there is no government," the Ruler said. "There is no single decision."

"No," Korvin said equably, "there are many decisions binding on all."

"Who makes them binding?" the Ruler asked. "Who forces you to accept these decisions? Some of them must be unfavorable to some beings?"

"Many of them are unfavorable," Korvin said. "But we are not forced to accept them."

"Do you act against your own interests?"

Korvin shrugged. "Not knowingly," he said. The Ruler flashed a look at the technicians handling the lie-detector. Korvin turned to see their expression. They needed no words; the lie-detector was telling them, perfectly obviously, that he was speaking the truth. But the truth wasn't making any sense. "I told you you wouldn't understand it," he said.

"It is a defect in your explanation," the Ruler almost snarled.

"My explanation is as exact as it can be," he said.

The Ruler breathed gustily. "Let us try something else," he said. "Everyone is the governor. Do you share a single mind? A racial mind has been theorized, though we have met with no examples—"

"Neither have we," Korvin said. "We are all individuals, like yourselves."

"But with no single ruler to form policy, to make decisions—"

"We have no need of one," Korvin said calmly.

"Ah," the Ruler said suddenly, as if he saw daylight ahead. "And why not?"

"We call our form of government *democracy*," Korvin said. "It means the rule of the people. There is no need for another ruler."

One of the experts piped up suddenly. "The beings themselves rule each other?" he said. "This is clearly impossible; for, no one being can have the force to compel acceptance of his commands. Without his force, there can be no effective rule."

"That is our form of government," Korvin said.

"You are lying," the expert said.

One of the technicians chimed in: "The machine tells us—"

"Then the machine is faulty," the expert said. "It will be corrected."

Korvin wondered, as the technicians argued, how long they'd take studying the machine, before they realized it didn't have any defects to correct. He hoped it wasn't going to be too long; he could foresee another stretch of boredom coming. And, besides, he was getting homesick.

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It took three days—but boredom never really had a chance to set in. Korvin found himself the object of more attention than he had hoped for; one by one, the experts came to his cell, each with a different method of resolving the obvious contradictions in his statements.

Some of them went away fuming. Others simply went away, puzzled.

On the third day Korvin escaped.

It wasn't very difficult; he hadn't thought it would be. Even the most logical of thinking beings has a subconscious as well as a conscious mind, and one of the ways of dealing with an insoluble problem is to make the problem disappear. There were only two ways of doing that, and killing the problem's main focus was a little more complicated. That couldn't be done by the subconscious mind; the conscious had to intervene somewhere. And it couldn't.

Because that would mean recognizing, fully and consciously, that the problem *was* insoluble. And the Tr'en weren't capable of that sort of thinking.

Korvin thanked his lucky stars that their genius had been restricted to the physical and mathematical. Any insight at all into the mental sciences would have given them the key to his existence, and his entire plan, within seconds.

But, then, it was lack of that insight that had called for this particular plan. That, and the political structure of the Tr'en.

The same lack of insight let the Tr'en subconscious work on his escape without any annoying distractions in the way of deep reflection. Someone left a door unlocked and a weapon nearby—all quite intent, Korvin was sure. Getting to the ship was a little more complicated, but presented no new problems; he was airborne, and then space-borne, inside of a few hours after leaving the cell.

He set his course, relaxed, and cleared his mind. He had no psionic talents, but the men at Earth Central did; he couldn't receive messages, but he could send them. He sent one now.

Mission accomplished; the Tr'en aren't about to come marauding out into space too soon. They've been given food for thought—nice indigestible food that's going to stick in their craws until they finally manage to digest it. But they can't digest it and stay what they are; you've got to be democratic, to some extent, to understand the idea. What keeps us obeying laws we ourselves make? What keeps us obeying laws that make things inconvenient for us? Sheer self-interest, of course—but try to make a Tr'en see it!

With one government and one language, they just weren't equipped for translation. They were too efficient physically to try for the mental sciences at all. No mental sciences, no insight into my mind or their own —and that means no translation.

But—damn it—I wish I were home already.

I'm bored absolutely stiff!

THE END

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Continued from page 81

sleeves for the world to read. Kramer came in when his buzzer sounded, made coffee for the two generals and was aware that Grote and Clough were old pals and that the Ripsaw general was kidding the pants off his guest.

"You always were a great admirer of Georgie Patton," Grote teased. "You should be glad to follow in his footsteps. Your operation will go down in history as big and important as his historic cross-Channel smash into Le Havre."

Kramer's thoughts were full of himself—he did not much like getting even so close to the yutes as Kiska, where he would be before the sun set that night—but his ears pricked up. He could not remember any cross-Channel smash into Le Havre—by Patton or anybody else.

"Just because I came to visit your show doesn't mean you have to rib me, Larry," Clough grumbled.

"But it's such a pleasure, Mick."

Clough opened his eyes wide and looked at Grote. "I've generaled against Novotny before. If you want to know what I think of him, I'll tell you."

Pause. Then Grote, gently: "Take it easy, Mick. Look at my boy there. See him quivering with curiosity?"

Kramer's back was turned. He hoped his blush would subside before he had to turn around with the coffee. It did not.

"Caught red-faced," Grote said happily, and winked at the other general. Clough looked stonily back. "Shall we put him out of his misery, Mick? Shall we fill him in on the big picture?"

"Might as well get it over with."

"I accept your gracious assent." Grote waved for Kramer to help himself to coffee and to sit down. Clearly he was unusually cheerful today, Kramer thought. Grote said: "Lieutenant Kramer, General Clough is the gun-captain of a Quaker cannon which covers Ripsaw. He looks like a cannon. He acts like a cannon. But he isn't loaded. Like his late idol George Patton at one point in his career, General Clough is the commander of a vast force which exists on paper and in radio transmissions alone."

Clough stirred uneasily, so Grote became more serious. "We're brain-washing Continental Defense Commissar Novotny by serving up to him his old enemy as the man he'll have to fight. The yute radio intercepts are getting a perfect picture of an assault on Polar Nine being prepared under old Mick here. That's what they'll prepare to counter, of course. Ripsaw will catch them flatfooted."

Clough stirred again but did not speak.

Grote grinned. "All right. We *hope,*" he conceded. "But there's a lot of planning in this thing. Of course, it's a waste of the talent of a rather remarkably able general"—Clough gave him a lifted-eyebrow look—"but you've got to have a real man at the head of the fake army group or they won't believe it. Anyway, it worked with Patton and the Nazis.

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Some unkind people have suggested that Patton never did a better bit of work than sitting on his knapsack in England and letting his name be used."

"Wait'll the shooting starts," Clough said sourly.

"Ike never commanded a battalion before the day he invaded North Africa, Mick. He did all right."

"Ike wasn't up against Novotny," Clough said heavily. "I can talk better while I'm eating, Larry. Want to buy me a lunch?"

General Grote nodded. "Lieutenant, see what you can charm out of Colonel Bucknell for us to eat, will you? We'll have it sent in here, of course, and the best girls she's got to serve it." Then, unusually, he stood up and looked appraisingly at Kramer.

"Have a nice flight," he said.

III

Kramer's blue *fourragére* won him cold handshakes but a seat at the first table in the Headquarters Officers Mess in Kiska. He didn't have quite enough appetite to appreciate it.

Approaching the island from the air had taken appetite away from him as the GOA autocontroller rocked the plane in a carefully calculated zigzag in its approach. They were, Kramer discovered, under direct visual observation from any chance-met bird from yute eyries across the Strait until they got below five hundred feet. Sometimes the yutes sent over a flight of birds to knock down a transport. Hence the zigzags.

Captain Mabry, a dark, tall Georgian who had been designated to make the general's aide feel at home, noticed Kramer wasn't eating, pushed his own tray into the center strip and, as it sailed away, stood up. "Get it off the pad, shall we? Cain't keep the Old Man waiting."

The captain took Kramer through clanging corridors to an elevator and then up to the eyrie. It was only a room. From it the spy-bird missiles—rockets, they were really, but the services like to think of them as having a punch, even though the punch was only a television camera—were controlled. To it the birds returned the pictures their eyes saw.

Brigadier Spiegelhauer shook Kramer's hand. "Make yourself at home, lieutenant," he boomed. He was short and almost skeletally thin, but his voice was enormous. "Everything satisfactory for the general, I hope?"

"Why, yes, sir. I'm just looking around."

"Of course," Spiegelhauer shouted. "Care to monitor a ride?"

"Yes, sir." Mabry was looking at him with amusement, Kramer saw. Confound him, what right did *he* have to think Kramer was scared—even if he was? Not a physical fear; he was not insane. But . . . scared.

The service life of a spy-bird over yute territory was something under twenty minutes, by then the homing heads on the ground-to-air birds would have sniffed out its special fragrance and knocked it out. In that

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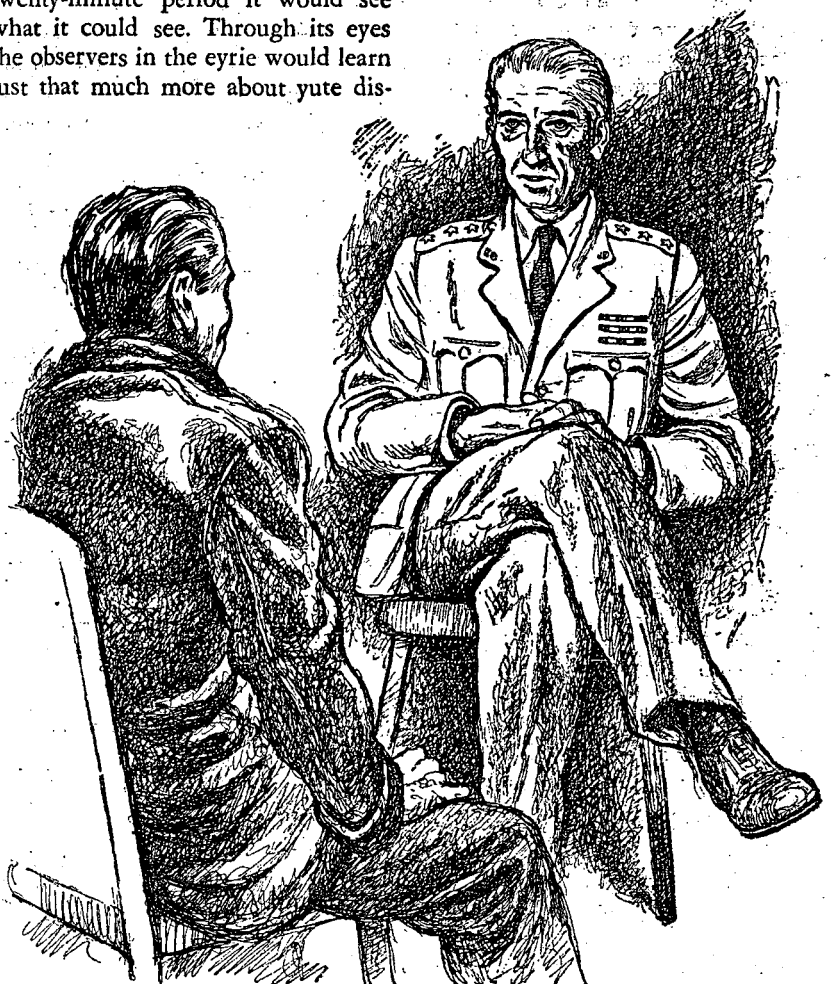
twenty-minute period it would see what it could see. Through its eyes the observers in the eyrie would learn just that much more about yute dis-



positions—so long as it remained in direct line-of-sight to the eyrie, so long as everything in its instrumentation worked, so long as yute jamming did not penetrate its microwave control.

Captain Mabry took Kramer's arm. "Take'er off the pad," Mabry said negligently to the launch officer. He conducted Kramer to a pair of monitors and sat before them.

On both eight-inch screens the of-

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ficers saw a diamond-sharp scan of the inside of a silo plug. There was no sound. The plug lifted off its lip without a whisper, dividing into two semicircles of steel. A two-inch circle of sky showed. Then, abruptly, the circle widened; the lip irised out and disappeared; the gray surrounded the screen and blanked it out, and then it was bright blue, and a curl of cirro-cumulus in one quadrant of the screen.

Metro had promised no cloud over the tactical area, but there was cloud there. Captain Mabry frowned and tapped a tune on the buttons before him; the cirro-cumulus disappeared and a line of gray-white appeared at an angle on the screen. "Horizon," said Mabry. "Labble to make you sea-sick, lootenant." He tapped some more and the image righted itself. A faint yellowish stain, not bright against the bright cloud, curved up before them and burst into spidery black smoke. "Oh, they are *anxious*," said Mabry, sounding nettled. "General, weather has busted it again. Cain't see a thing."

Spiegelhauer bawled angrily, "I'm going to the weather station," and stamped out. Kramer knew what he was angry about. It was not the waste of a bird; it was that he had been made to lose face before the general's aide de camp. There would be a bad time for the Weather Officer because Kramer had been there that day.

The telemetering crew turned off their instruments. The whining eighteen-inch reel that was flinging tape across a row of fifteen magnetic heads, recording the picture the spy-bird took, slowed and droned and stopped. Out of instinct and habit Kramer pulled out his rough diary and jotted down *Brig. Spiegelhauer —Permits bad wea. sta. situation?* But it was little enough to have learned on a flight to Kiska, and everything else seemed going well.

Captain Mabry fetched over two mugs of hot cocoa. "Sorry," he said. "Cain't be helped, I guess."

Kramer put his notebook away and accepted the cocoa.

"Beats U-2in'," Mabry went on. "Course, you don't get to see as much of the country."

Kramer could not help a small, involuntary tremor. For just a moment there, looking out of the sky-bird's eyes, he had imagined himself actually in the air above yute territory and conceived the possibility of being shot down, parachuting, internment, the Blank Tanks, "Yankee! Why not be good fellow? You *proud* you murderer?"

"No," Kramer said, "you don't get to see as much of the country." But he had already seen all the yute country he ever wanted.

Kramer got back in the elevator and descended rapidly, his mind full. Perhaps a psychopath, a hungry cat or a child would have noticed that the ride downward lasted a second or two less than the ride up. Kramer did not. If the sound echoing from the tunnel he walked out into was a bit more clangorous than the one he had en-

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tered from, he didn't notice that either.

Kramer's mind was occupied with the thought that, all in all, he was pleased to find that he had approached this close to yute territory, and to yute Blank Tanks, without feeling *particularly* afraid. Even though he recognized that there was nothing to be afraid of, since, of course, the yutes could not get hold of him here.

Then he observed that the door Mabry opened for him led to a chamber he knew he had never seen before.

They were standing on an approach stage and below them forty-foot rockets extended downward into their pit. A gantry-bridge hung across space from the stage to the nearest rocket, which lay open, showing a clumsily padded compartment where there should have been a warhead or an instrument capsule.

Kramer turned around and was not surprised to find that Mabry was pointing a gun at him. He had almost expected it. He started to speak. But there was someone else in the shadowed chamber, and the first he knew of *that* was when the sap struck him just behind the ear.

It was all coming true: "Yankee! Why not be honest man? You *like* to murder babies?" Kramer only shook his head. He knew it did no good to answer. Three years before he had answered. He knew it also did no good to keep quiet; because he had done that, too. What he knew most of all was that nothing was going to do him any good because the yutes had him now, and who would have thought Mabry would have been the one to do him in?

They did not beat him at this point, but then they did not need to. The nose capsule Mabry had thrust him into had never been designed for carrying passengers. With ingenuity Kramer could only guess at Mabry had contrived to fit it with parachutes and water-tight seals and flares so the yute gunboat could find it in the water and pull out their captive alive. But he had taken 15 and 20-G accelerations, however briefly. He seemed to have no serious broken bones, but he was bruised all over. Secretly he found that almost amusing. In the preliminary softening up the yutes did not expect their captives to be in physical pain. By being in pain he was in some measure upsetting their schedule. It was not much of a victory but it was all he had.

Phase Two was direct questioning: What was Ripsaw exactly? How many divisions? Where located? Why had Lieutenant general Grote spent so much time with Lieutenant general Clough? When Mary Elizabeth Grote, before her death, entertained the Vietnamese UNESCO delegate's aunt in Sag Harbor, had she known her husband had just been passed over for promotion to brigadier? And was resentment over that the reason she had subsequently donated twenty-five dollars to a mission hospital in Laos? What were the Bering Straits rendezvous points for missile sub-

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marines supporting Ripsaw? Was the transfer of Lieutenant colonel Carolyn S. Bucknell from Message Center Batallion C.O. to Mess Officer a cover for some CIC complexity? What air support was planned for D plus one? D plus two? Did Major Somebody-or-other's secret drinking account for the curious radio intercept in clear logged at 0834 on 6 October 1985? Or was "Omobray for my eadhay" the code designation for some nefarious scheme to be launched against the gallant, the ever-victorious forces of Neo-Utilitarianism?

Kramer was alternately cast into despondency by the amount of knowledge his captors displayed and puzzled by the psychotic irrelevance of some of the questions they asked him. But most of all he was afraid. As the hours of Phase Two became days, he became more and more afraid—afraid of Phase Three—and so he was ready for Phase Three when the yutes were ready for him.

Phase Three was physical. They beat the living be-hell out of First lieutenant John Kramer, and then they shouted at him and starved him and kicked him and threw him into bathtubs filled half with salt water and half with shaved ice. He was in constant pain. But he didn't think much about the pain. What he thought about was what came next. For the bad thing about Phase Three was Phase Four.

He remembered. First they would let him sleep. Then they would wake him up and feed him quickly, and bandage his worst bruises, and bandage his ears, with cotton tampons, and bandage his eyes, and bandage his mouth, so he couldn't bite his tongue, and bandage his arms and legs, so he couldn't move them or touch them together . . .

And then the short superior-private who was kicking him while he thought all this stopped and talked briefly to a noncom. The two of them helped him to a mattress and left.

Ten hours later he was back in the Blank Tanks.

Sit back and listen. What do you hear?

Perhaps you think you hear nothing. You are wrong. You discount the sound of a distant car's tires, or the crackle of metal as steam expands the pipes. Listen more carefully to these sounds; others lie under them. From the kitchen there is a grunt and hum as the electric refrigerator switches itself on. You change position; your chair creaks, the leather of your shoes slip-slides with a faint sound. Listen more carefully still and hear the tiny roughness in the main bearing of the electric clock in the next room, or the almost inaudible hum of wind in a television antenna.

In the Blank Tanks a man hears nothing at all.

The pressure of the tampons in the ear does not allow stirrup to strike anvil; teeth cannot touch teeth, hands cannot clap, he cannot make a noise if he tries to, or hear it if he did.

That is deafness. The Blank Tanks are more than deafness. In them a man is blind, even to the red fog that

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reaches through closed eyelids. There is nothing to smell. There is nothing to taste. There is nothing to feel except the swaddling cloths, and through time the nerve ends tire and stop registering this constant touch.

Kramer was ready for the Blank Tank and did not at once panic. He remembered the tricks he had employed before. He swallowed his own sputum and it made a gratifying popping sound in his inner ear; he hummed until his throat was raw and gasped through flaring nostrils until he became dizzy. But each sound he was able to produce lasted only a moment. He might have dropped them like snowflakes onto wool. They were absorbed and they died.

It was actually worse, he remembered tardily, to produce a sound because you could not help but listen for the echo and no echo came. So he stopped.

In three years he *must* have acquired some additional resources, he thought. Of course. He had! He settled down to construct a crossword puzzle in his head. Let 1 Across be a tropical South American bird, *hoatzin.* Let 1 Down be a medieval diatonic series of tones, *hexachord.* Let 2 Down be the Asiatic wild ass, or *onagin,* which might make the first horizontal word under 1 Across be, let's see, E—N— . . . well, why not the ligature of couplets in verse writing, or *enjambment.* That would make 3 Down—He began to cry, because he could not remember 1 Across.

Something was nagging at his mind, so he stopped crying and waited for it to take form, but it would not. He thought of General Grote, by now surely aware that his aide had been taken; he thought of the consternation that must be shuddering through all the tentacles of Ripsaw. It was not actually going to be so hard, he thought pathetically, because he didn't actually have to *hold out* against the Blank Tanks, he only had to *wait.* After D day, or better, say, D plus 7, it wouldn't much matter what he told them. Then the divisions would be across. Or not across. Break-through or failure, it would be decided by then and he could talk.

He began to count off Ripsaw's division officers to himself, as he had so often seen the names on the morning reports. Catton of the XLIst Armored, with Colonels Bogart, Ripner and Bletterman. M'Cleargh of the Highland & Lowland, with Brigadiers Douglass and McCloud. Leventhal of the Vth Israeli, with Koehne, Meier and—he stopped, because it had occurred to him that he might be speaking aloud. He could not tell. All right. Think of something else.

But what?

There was nothing dangerous about sensory deprivation, he lied. It was only a rest. Nobody was hurting him. Looked at in the right way, it was a chance to do some *solid* thinking like you never got time for in real life—strike that. In *outside* life. For instance, what about freshing up on French irregular verbs? Start with *avoir.* Tu as, vous avez, nous avons.

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Voi avete, noi abbiamo, du habst . . . Du habst? How did that get in there? Well, how about poetry?

It is an ancient Mariner, and he
stops the next of kin.
The guests are met, the feast is set,
and sisters under the skin
Are rag and bone and hank of hair,
and beard and glittering eye
Invite the sight of patient Night,
etherized under the sky.
I should have been a ragged claw;
I should have said 'I love you;'
But—here the brown eyes lower
fell—I hate to go above you.
If Ripsaw fail and yutes prevail,
what price Clough's Quaker cannon?

So Grote—

Kramer stopped himself, barely in time. Were there throat mikes? Were the yutes listening in?

He churned miserably in his cotton bonds, because, as near as he could guess, he had probably been in the Blank Tank for less than an hour. D day, he thought to himself, praying that it was only to himself, was still some six weeks away and a week beyond that was seven. Seven weeks, forty-nine days, eleven hundred and seventy-six hours, sixty-six thousand minutes plus. He had only to wait those minutes out. What about the diary? And then he could talk all he wanted. Talk, confess, broadcast, anything, what difference would it make then?

He paused, trying to remember. That furtive thought had struggled briefly to the surface but he had lost it again. It would not come back.

He tried to fall asleep. It should have been easy enough. His air was metered and the CO_2 content held to a level that would make him torpid; his wastes catheterized away; water and glucose valved into his veins; he was all but *in utero,* and unborn babies slept, didn't they? Did they? He would have to look in the diary, but it would have to wait until he could remember what thought it was that was struggling for recognition. And that was becoming harder with every second.

Sensory deprivation in small doses is one thing; it even has its therapeutic uses, like shock. In large doses it produces a disorientation of psychotic proportions, a melancholia that is all but lethal; Kramer never knew when he went loopy.

IV

He never quite knew when he went sane again, either, except that one day the fog lifted for a moment and he asked a WAC corporal, "When did I get back to Utah." The corporal had dealt with returning yute prisoners before. She said only: "It's Fort Hamilton, sir. Brooklyn."

He was in a private room, which was bad, but he wore a maroon bathrobe, which was good—at least it meant he was in a hospital instead of an Army stockade. (Unless the private room meant he was in the detention ward of the hospital.)

Kramer wondered what he had done. There was no way to tell, at least not by searching his memory.

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Everything went into a blurry alternation of shouting relays of yutes and the silence of the Blank Tanks. He was nearly sure he had finally told the yutes everything they wanted to know. The question was, when? He would find out at the court-martial, he thought. Or he might have jotted it down, he thought crazily, in the diary.

Jotted it down in the. . .?

Diary!

That was the thought that had struggled to come through to the surface!

Kramer's screams brought the corporal back in a hurry, and then two doctors who quickly prepared knockout needles. He fought against them all the way.

"Poor old man," said the WAC, watching him twitch and shudder in unconsciousness. (Kramer had just turned forty.) "Second dose of the Blank Tanks for him, wasn't it? I'm not surprised he's having nightmares." She didn't know that his nightmares were not caused by the Blank Tanks themselves, but by his sudden realization that his last stay in the Tanks was totally unnecessary. It didn't matter what he told the yutes, or when! They had had the diary all along, for it had been on him when Mabry thrust him in the rocket; and all Ripsaw's secrets were in it!

The next time the fog lifted for Kramer it was quick, like the turning on of a light, and he had distorted memories of dreams before it. He thought he had just dreamed that General Grote had been with him. He was alone in the same room, sun streaming in a window, voices outside. He felt pretty good, he thought tentatively, and had no time to think more than that because the door opened and a ward boy looked in, very astonished to find Kramer looking back at him.

"Holy heaven," he said. "Wait there!"

He disappeared. Foolish, Kramer thought. Of course he would wait. Where else would he go?

And then, surprisingly, General Grote did indeed walk in.

"Hello, John," he said mildly, and sat down beside the bed, looking at Kramer. "I was just getting in my car when they caught me."

He pulled out his pipe and stuffed it with tobacco, watching Kramer. Kramer could think of nothing to say. "They said you were all right, John. Are you?"

"I . . . think so." He watched the general light his pipe. "Funny," he said. "I dreamed you were here a minute ago."

"No, it's not so funny; I was. I brought you a present."

Kramer could not imagine anything more wildly improbable in the world than that the man whose combat operation he had betrayed should bring him a box of chocolates, bunch of flowers, light novel or whatever else was appropriate. But the general glanced at the table by Kramer's bed.

There was a flat, green-leather-covered box on it. "Open it up," Grote invited.

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Kramer took out a glittering bit of metal depending from a three-barred ribbon. The gold medallion bore a rampant eagle and lettering he could not at first read.

"It's your D.S.M.," Grote said helpfully. "You can pin it on if you like. I tried," he said, "to make it a Medal of Honor. But they wouldn't allow it, logically enough."

"I was expecting something different," Kramer mumbled foolishly.

Grote laughed. "We smashed them, boy," he said gently. "That is, Mick did. He went straight across Polar Nine, down the Ob with one force and the Yenisei with another. General Clough's got his forward command in Chebarkul now, loving every minute of it. Why, I was in Karpinsk myself last week—they let me get that far—of course, it's a rest area. It was a brilliant, bloody, back-breaking show. Completely successful."

Kramer interrupted in sheer horror: "Polar *Nine?* But that was the cover—the Quaker cannon!"

General Grote looked meditatively at his former aide. "John," he said after a moment, "didn't you ever wonder why the card-sorters pulled you out for my staff? A man who was sure to crack in the Blank Tanks, because he already had?"

The room was very silent for a moment.

"I'm sorry, John. Well, it worked—had to, you know; a lot of thought went into it. Novotny's been relieved. Mick's got his biggest victory, no matter what happens now; he was the man that led *the* invasion."

The room was silent again.

Carefully Grote tapped out his pipe into a metal wastebasket. "You're a valuable man, John. We traded a major general to get you back."

Silence.

Grote sighed and stood up. "If it's any consolation to you, you held out four full weeks in the Tanks. Good thing we'd made sure you had the diary with you. Otherwise our Quaker cannon would have been a bust."

He nodded good-by and was gone. He was a good officer, was General Grote. He would use a weapon in any way he had to, to win a fight; but if the weapon was destroyed, and had feelings, he would come around to bring it a medal afterwards.

Kramer contemplated his Distinguished Service Medal for a while. Then he lay back and considered ringing for a Sunday *Times,* but fell asleep instead.

Novotny was now a sour, angry corps commander away off on the Baltic periphery because of him; a million and a half NAAARMY troops were dug in in the heart of the enemy's homeland; the greatest operation of the war was an unqualified success. But when the nurse came in that night, the Quaker cannon—the man who had discovered that the greatest service he could perform for his country was to betray it—was moaning in his sleep.

THE END

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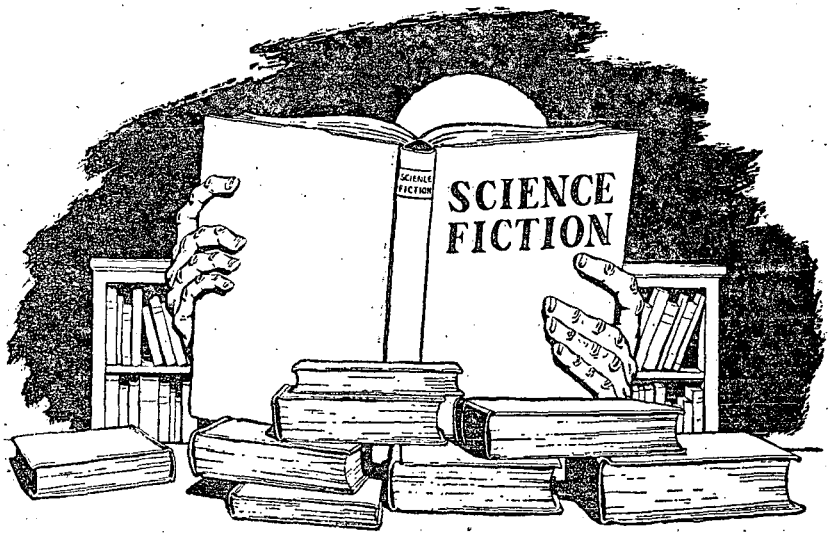
By P. SCHUYLER MILLER



FORMULA STUFF

IN THE morning that the wire services finally confirmed the rumors of a Russian "cosmonaut," a reporter from one of the Pittsburgh papers was on the phone with some questions about what the successful orbiting of a man will do to "the formula" for science fiction. I apparently convinced him that there is no such thing, because that approach vanished from the published interview, but on second thought it seems that by applying mathematical forms to science fiction we can clarify some of the reasons why stories turn out as they do.

One of the commonest charges leveled at science fiction is that it is "juvenile"—by which the critic generally means that he looks on it as writing of the level of complexity typical of "Tom Swift, Jr." or the comics. Now, it is no news that many

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of the ideas considered in a moderately sophisticated piece of science fiction are too complex to get across to an academically trained intellectual, but that's another story, and one that has often been told. What I am after is some expression for the complexity of a story in this or any other magazine or book.

Reduced to terms that a mathematician may find ridiculous, the complexity of a story is a function of the complexities of its ingredients—its characters, and its plot. Let's use "K" to represent a "coefficient of complexity" for the story, "C" for the complexity of its characters, and "P" for that of the plot. Then, with all kinds of reservations that mean very little here, since I am loading a set of dice, we can say that:

$$K = C \times P$$

This, however, is only the first stage of complication. Most stories have several characters, each one portrayed with a different degree of complexity. Since these interact on each other, let's expand "C" into:

$$C = C_1 \times C_2 \times C_3 \times \ldots \times C_n$$

for a story with "n" characters.

As for the plot, several elements enter into it. Most science fiction, like most mysteries, is built around a gimmick of some kind—time travel, psi, conditions on another planet, a way-out society as satirically drawn as in a Pohl/Kornbluth or as meticulously as in a Heinlein yarn. Since magazine science fiction is also primarily a form of entertainment, action is also one of its essentials. So, let's say that:

$$P = G \times A$$

where "G" represents the complexity of the gimmick, and "A" that of the action.

Putting all these rather arbitrarily assigned expressions together, our coefficient of complexity for a science-fiction story becomes:

$$K = (C_1 \times C_2 \times \ldots \times C_n) \times G \times A$$

I don't have to be told that there can be multiple gimmicks—Shakespeare loved 'em—and multiple lines of action, but we have to stop somewhere.

Now, there is no *a priori* reason why a good writer can't involve a large cast of complex characters in complex action centering on a complex gimmick, thus producing a story with unlimited complexity. Practically, however, they don't. Writers tend to oscillate back and forth around some typical level of complexity. So do editors, in what they buy. So do magazines, in supplying stories of the level that their readers seem to like. It's no secret that, a few years back, Astounding had a large coefficient of complexity and *Planet Stories* or *Fantastic Adventures* had a relatively low one. They appealed to different readerships, whose screams of joy and rage more or less set their respective levels.

A quick look at a typical "literary" short story, such as might be published in *The New Yorker* or *Atlantic Monthly*, suggests that there is practically no gimmick at all—or, let's say, a gimmick in name only—and usually blessed little action. To achieve a high complexity coefficient and rate as "adult" fiction, the author has to create some pretty complex

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characters, and this is exactly what he does. The greater his talent, the more individual characters he can build up.

In science fiction, on the other hand, the gimmick is almost always fairly important. Time was when it was all you needed to sell a story. Looking back with a jaundiced eye, it seems that very nearly every story I ever sold was a gimmick story, and for the first two dozen or so that was *all* the story offered. Nor were they very complex gimmicks, and since the action was rudimentary and the characterization nil, the complexity coefficient of those first stories of mine was very, very small.

So, as a matter of fact, was the level of most science fiction of the time. Our constant, "K," is a variable constant like the Bugger Factor in Murphy's Law, and for the field as a whole it has been steadily increasing.

After a while we got into another era of science fiction in which action was developed to a greater degree than any of the other elements. These, of course, are the space operas; they are also the "wheels within wheels" stories that A. E. van Vogt built up to a higher level of total bewilderment than almost anyone before or since. Inasmuch as Van Vogt generally coupled a complex gimmick—mutant powers in "Slan", general semantics in the "Null A" stories—with an ultra-complex plot, his stories had a much higher "K" than the run-of-the-mill space opera. But, since he, too, had a level of his own, the higher he built the "G" and "A" elements in the equation, the lower the complexity of his characters became.

Science fiction has had its memorable characters—though not many. They have rarely been complex ones; rather, they are bold types who serve as a pivot on whom to hang a gimmick or puppets who go through some lively action. Professor Challenger . . . Verne's Captain Nemo, perhaps . . . John Carter . . . Kim Kinnison . . . Hawk Carse . . . Conan . . . Adam Link . . . every one of them, even Challenger and Nemo, utterly predictable from chapter to chapter and story to story. We remember what happened to them, rather than what happened inside them.

What I'm saying, symbolically, through that pseudo-equation, is that every story is the result of a complicated seesaw process. The average writer has—or uses—just so much ability. If he develops a really superlative gimmick, it may be all he does—though he's likely to need a modicum of action to support it. "Space Merchants" *is* its gimmick; so is "The Time Machine." Action can be routine, characterization negligible, and the story will still be remembered. Or he can weave a notably intricate system of action around an ordinary gimmick, still with puppet characters, and also score high. In fact, granted that he maintains his level—his "K"—the more he builds up one element of the story, the less he does with the others.

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Coming down to our own time, Judith Merril is probably putting more realistically complex people into her stories than anyone I can think of—yet the same equation of balance holds. Her gimmicks aren't very wild, and her action isn't violent or intricate. Theodore Sturgeon, as ever, is a case unto himself. If anyone has, he has been able to develop character *and* action *and* a series of pretty formidable gimmicks, as in "Baby Is Three," the middle section of "More Than Human." Zenna Henderson's stories about "the People"—out in book form by the time you see this—present a series of different, likable characters combined with a static gimmick and simple action.

Olaf Stapledon is recognized as one of the giants of our field, but "Last and First Men" is one colossal gimmick with no plot or characters; to me, the one real character is the brilliant dog, "Sirius," and all I remember now *is* Sirius himself—not what happened to him. Worsel and Tregonsee stand out in "Doc" Smith's Lens yarns even more than Kinnison; so does Twell in Weinbaum's "Martian Odyssey."

Is there, sitting at a typewriter somewhere, a writer who will put a set of really complex characters into a wowser of a plot, spinning merrily around a gimmick to end all gimmicks? Will he kite the coefficient of complexity for his story up into the exponential reaches, and set a new mark for the whole field to aim for? Sure there is . . . and you may see the story right here in Analog, where "K" probably stands as high as anywhere in science fiction.

* * * * *

Atlas, the new "Magazine of the World Press," published excerpts from "Icosameron," a Utopian satire by the noted Casanova, in its first two issues. The 1,650-page original was published in 1788 in Prague and had nothing like the success of the famous "Memoirs" which followed. A new Italian edition, excerpted for *Atlas,* whittles this down to a third of the original size.

* * * * *

If you are on the West Coast, or can find your way there for the Labor Day weekend, don't miss the Seacon—the 19th World Science Fiction Convention, which will be held at the Hyatt House, Seattle, on September 2-3-4, 1961. Guest of Honor and principal speaker is Robert A. Heinlein; second major attraction, John W. Campbell. Membership, $2.00 in advance, $1.00 more when you get there, payable to Wally Weber, Treasurer, or Seattle Science Fiction Club, P.O., Box 1365, Broadway Branch, Seattle 2, Washington.

This year only Convention members will vote on the "Hugo" awards for best science fiction of 1960. It's already too late to take a hand in the nominations, which were open to all readers, but you may still have time to cast a determining vote in the finals. I won't know what the finalists are in time to tip you off: you have to get that information directly, as a member of the Seacon.

Only contender out in the open

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yet for the 1962 Convention is Chicago. If the Chiac rooters get it, I can assure you that they will put on a convention strung with carillons and introduced by a chorus of 101 Dal . . . er, trombones. On the other hand, there were rumors in Pittsburgh last Labor Day that Indiana fandom would make a fight of it.

FAR OUT, by Damon Knight. Simon and Schuster, New York. 1961. 282 pp. $3.95

There is no more relentless critic of science fictional performance than Damon Knight, but he is also a realist. He is willing to write good stories himself, without insisting that they measure up to his own high standards. Here are thirteen examples of his art, distributed through several magazines between 1949 and 1960, some science fiction, a few fantasy.

Most of the stories in the collection glide smoothly up to a surprise ending, which may not be Art or Literature but is fun. Perhaps the best known of these is the opener, "To Serve Man," about the too-beneficent aliens whose true purpose is revealed by the title of the story. Probably the most original is "You're Another," with its zany, almost slapstick action sidling up to another punch revelation.

Variations on standard time-travel themes also account for a rather large part of the book. Taking them as they come, "Thing of Beauty" uses some kind of time-slip to present a California sharper with a marvelous art-making machine from the future. He proceeds to spin a web and glue himself fast to it. In "Anachron," one of my favorites, an unscrupulous collector uses the machine to rob a far-future museum; perhaps it's a sentimental favorite because I used a similar gimmick in "As Never Was—", which seems to be my one remembered story. Very short and piercing is "Time Enough," in which a boy tries to change himself;, almost as short, and mocking, is Rossi's search for an Eden in "Extempore."

But there's no monotony of theme, style or treatment to Knight. Take "Idiot Stick"—least of the lot, to my taste, but a trickily developed puzzle story in which the aliens must be overthrown by Wednesday. Take "Babel II," my favorite, which is a riotous puzzle of quite another kind, as New York collapses into unintelligibility. Take the deftly delivered joke, "Not With a Bang," about the last man and woman in the world . . . or the straight, strange, terrifying "The Enemy" . . . or the savage humor of the super-infant in "Special Delivery," another of the book's top samples. Take "Cabin Boy," another "straight" story with a built-in kicker, that offers one of the strangest space-wandering races since the Earth screamed for Professor Challenger. And finally a short, direct so-so fantasy, "The Last Word."

"Unpretentious ease and rightness" are the tags Anthony Boucher hangs on Damon Knight's writing in his introduction. It may not make great

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stories, but it makes very good ones if you read for pleasure.

THE BIG TIME, by Fritz Leiber. THE MIND SPIDER, by Fritz Leiber. Ace Books, N.Y. No. D-491. 129 + 127 pp. 35¢

This is one of Ace's better buys, simply because this much Leiber is worth double your money any time.

"The Big Time" won the "Hugo" as best science-fiction novel of 1958, the year it appeared in *Galaxy*. It isn't in the class with James Blish's "Case of Conscience," the '59 winner, and there are almost certainly better contenders for 1960, but it is a superior adventure-mystery about the strangely assorted crew of men and women, snatched out of their lives by emissaries from the far future, who fight and scheme to change the structure of time and history. Two unseen forces are at war in the Big Time, the enemy Snakes and the Spiders, and several of the stories in the other half of the book deal with facets of the same shifting universe.

In "The Big Time" a group of fugitive fighters seek refuge in a womblike nest, floating in the limbo between worlds and times, staffed for their solace by a small crew of entertainers. Soon personal interests clash and mesh, and the Place is cast adrift, its maintaining mechanism vanished, and an atomic bomb due to go off. The plot has suspense, but it is the personalities of the participants in the Change War, and the concept of that war itself, that is fascinating.

In the flip half of the book, the Change War is still raging. "Damnation Morning," with truly Leiberian irony, shows us one of the Spiders' recruits who makes a grim discovery —and opens out the whole concept of the Change War in an instant. "The Oldest Soldier" introduces us to one of the veterans of the War, hunted by a relentless black Something. "Try and Change the Past" gives us a protagonist from the "other" side, the Snakes, in what is really not much more than a bit of exposition helping to round out the Change War concept. It was here in 1958.

As for the other shorts, the best is "The Haunted Future"—called "Tranquility, or Else!" in the all-Leiber issue of *Fantastic* for November, 1959. This shows us a deftly, acidly brushed in society based on universal serenity, in which a disturbing note of madness intrudes and a green-faced monster prowls. "The Number of the Beast" is an entertainment, a puzzle-mystery in which the problem is to deduce which alien took the bribe. "The Mind Spider," title story for this half of the book, is a little chiller about telepaths battling an imprisoned monster.

In a very different way, Fritz Leiber builds societies almost as skillfully as Robert A. Heinlein. Where Heinlein unobtrusively fills in every last crack and chink in his structure with meticulously invented and reasoned detail, Leiber works sometimes with a pallette knife, sometimes with a miniaturist's three hairs, leaving

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the reader to fill in the gaps intuitively. Both men are among the top artists in our field.

THE JOY MAKERS, by James Gunn. Bantam Books, N.Y. No. A-2219. 160 pp. 35¢

You may have seen, in the April *Harper's*, a chilling little article with the title "The Happiest Creatures on Earth?" It describes how rats, with the pleasure centers of their brains electrically stimulated, ignore food, sex, and most other supposedly basic drives for a few more moments of synthetic bliss. Grimmest of all is the picture of a donkey driven back and forth across the countryside by the automatic stimulation of his pleasure centers.

James Gunn's novel, assembled from three stories published in as many magazines in 1954 and '55, gives us a familiar fictionalization of a future society built on this same hedonistic drive. First we see the appearance of hedonism as a national movement, and one man's realization of how powerful and inescapable it can be, and how devastating in cynical hands. In the second, best, and longest episode we see this depraved culture at its peak through the eyes of the Hedonist, one of its practitioners, who is at last forced into revolt—not against the philosophy, but against its manipulators. Finally, still farther in the future, we see the ultimate mechanization of hedonism on Earth, through the eyes of returned refugees from Venus.

The episodic construction detracts from the effectiveness that is evident in the long second section, and the Underground formula is too familiar to be as effective as it once was, but the validity of the author's message is borne out by that *Harper's* article—we already have the mechanisms of a hedonist control of mankind.

THE OUTLAWS OF MARS, by Otis Adelbert Kline. Avalon Books, New York. 1961. 224 pp. $2.95

This is the second Martian yarn by the contemporary rival of Edgar Rice Burroughs, who beat the Old Master to Venus with his "Grandon" books but never matched him on Mars. Donald Tuck's "Handbook of Science Fiction and Fantasy," in fact, attributes the Mars stories to Burroughs, copying Donald Day's "Index on the Weird and Fantastica in Magazines," which makes the error about "Swordsman of Mars" but not about this sequel, published as a seven-part serial in *Argosy* in December 1933 and January 1934. Buroughs himself displaced Kline from *Argosy* shortly afterward.

Again an adventurer from Earth is transferred to Mars of the distant past—this time bodily instead of mentally—and through one of the standard miscalculations, lands in trouble. He is shortly an outlaw with superlative powers, leading a force of golden-hearted rebels against a stupid authority which in turn is threatened by the mysterious Torturer. There are beautiful women,

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sword battles, monsters, hairbreadth escapes, and all the formula stuff. Having brought his terrestrial muscles to Mars, like John Carter, Jerry Morgan can jump like a kangaroo and does when things get critical. For obscure reasons, his predecessor on Mars, Harry Thorne or "Borgen Takkor," doesn't get into the action at all.

They *do* write this kind of adventure yarn nowadays—better.

BEYOND THE REACH OF SENSE, by Rosalind Heywood. E. P. Dutton & Co., New York. 1961. 224 pp. $3.95

CHALLENGE OF PSYCHICAL RESEARCH, by Gardner Murphy. Harper & Brothers, New York. 1961. 297 pp. $6.00

These two books, coming out almost together, are exasperating. Professor Murphy's book, at least, is subtitled "a primer of parapsychology," and one might expect that we had, at last, a definitive statement on what has been found and what is conjectured about the phenomena or powers that in our—and the parapsychologists'—circles are generally labeled "psi."

But this is precisely what you do *not* get, although Mrs. Heywood has done a better job and written a more readable and generally interesting book than her American counterpart. After these many years of well-publicized research, two things are quite evident: the parapsychologists are still devoting the greater part of their efforts to selling the existence of psi, on the familiar statistical grounds; and there is a drift into the emotionally loaded areas of ghosts and life-after-death that set off the original psychic research movement more than a century ago.

Both writers are rehashing the tired old experiments at card guessing—Murphy with detailed case reports—without saying much about where experiments along these lines are going today, or whether they go at all. Surely it would be enough to summarize the familiar work with Basil Shackleton, which turned a seeming lack of telepathy into a positive discovery of precognition, and get on to current investigations. A primer and a case book are two very different things.

As I said, Mrs. Heywood does by far the better job of telling the story of psychic research—and for $2.00 less than Dr. Murphy. To me, she made sense out of the elaborate series of "cross correspondences" among the scribblings of various automatic writers and mediums, spread across the world, that constitutes the most impressive evidence that one group of early researchers did survive death and get messages back to their colleagues—or that an elaborate interplay of telepathy, precognition, posthypnotic commands, and other assorted phenomena gave that effect. Murphy went over the same ground even more thoroughly and reduced it to scholarly confusion.

One thing does emerge—an answer, well documented, to the continual criticism that psi experiments

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are carelessly conducted. Unless you go along with the theory that everything is fraud and delusion, it should be clear that the parapsychologists tie up their loose ends more tightly than most physicists and chemists. Almost anyone, I am sure, would credit far more hits and higher scores than Whately Carington allowed in his picture-guessing experiments.

Another question nags me. Most of the striking spontaneous cases that these researchers cite are old. Are we breeding a generation that doesn't believe in such things . . . and consequently can't experience them? Are we, as Rhine has also suggested, losing our psi powers out of evolution or rationalization?

THE GLASS BEES, by Ernst Juenger. Noonday Press, New York. 1961. 149 pp. $3.75; paper, $1.65

This is one of a series of books by European writers, appearing simultaneously in hard-cover and paperback editions. Technically it is science fiction, in that the bees of the title are automata made by the industrial wizard, Zapparoni, whose works in a nameless central European country turn out everything from children's puppets to android TV actors.

Practically, this element of future technological wonder is simply a mechanism through which the author, a sixty-six-year-old German novelist, depicts his ex-cavalryman hero and the society in which he moves. Captain Richard is an individual with a mixture of useless strengths and fatal weaknesses, who has struggled along from the World War I cavalry officer to the tank technologist of the Spanish Civil War and World War II, and finally into near-total obsolescence. He has all the wrong skills, the wrong attitudes, the wrong psychology to live in modern Europe, and a distasteful job as head of guards for the mysterious Zapparoni seems to be the only way out. But Zapparoni sets a trap in his exotic garden, baited with the glass bees, with strange spy-creatures, and with an assortment of human ears . . .

There are some accidental, or at least unconscious comparisons of values that may be of interest. For example, Zapparoni's top technologists are said to be paid almost as much as a professor, "royally paid" in fact.

WALL OF SERPENTS, by L. Sprague de Camp & Fletcher Pratt. Avalon Books, New York. 1960. 223 pp. $2.95

Here are two more—and I think the two last—adventures of Harold Shea, the "incomplete enchanter" who was introduced to the world in *Unknown Worlds*, and who ought to be its symbol. The fine, free, careless rapture that is still in "The Incomplete Enchanter" is a little thin and perfunctory here; Tarzan is getting tired of bull apes; Dejah Thoris has laid an egg.

In the first and best of the two parts, Harold and his bride from the world of Spenser's "Faerie Queen" are trying to get their co-adventurers

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home from Coleridge's Xanadu. For help, Harold heads for the world of the ancient Finnish magicians, but picks the wrong magician and is presently involved in local feuds and magicking. Escaping from this situation, he winds up in the world he was headed for at the beginning of the first yarn, years ago—Ireland of the heroes.

FOR BIBLOGRAPHERS AND COLLECTORS

Donald H. Tuck, the Tasmanian fan whose "A Handbook of Science Fiction and Fantasy" is a landmark and an altogether essential compendium of information and misinformation about our field, is at it again. Those interested should write to his American agent, Howard De Vore, at 4705 Weddel Street, Dearborn, Michigan, who reports that there will be a supplement to the "Handbook" along in 1962. Meanwhile, Tuck has put out an errata sheet for those who have the 1959 edition. The "Handbook" itself, two volumes mimeographed on legal-size sheets, is $6.75 from De Vore.

However, there are now other useful bibliographical items from the Tuck typewriter. For example, "A Checklist of Anthologies," twenty-eight pages including an editor index: Abdullah, Achmed to Wollheim, Donald. No contents are given. Costs thirty cents loose, forty cents in manila—file-folder—covers.

The big, on-going Tuck project, which may turn out to be even more useful than his "Handbook," is his open-ended series of "Author's Works Listings." These will be issued in clutches or sets, each of which is supposed to be a complete bibliography of several writers' works as of the time of publication. Set I apparently came out in February, 1960 and ranges from Asimov, Isaac to Weinbaum, Stanley G. Included are Asimov, Bond, Brown, Cummings, Heinlein, Knight, Clement. Set II, September '60, adds Anderson, Clarke, Leinster, Keller, Kline, Schachner, and Whitehead.

For each writer, you get: (1) a short biography; (2) list of published books in all languages; (3) series identifications; and (4) story listing, including those published under pseudonyms and in collaboration. The sheets are loose, so you can punch 'em and file 'em alphabetically in a looseleaf binder as have I. Individual sets will be twenty-five cents as they appear, but the first two are available from Howard De Vore for forty-five cents net.

A printer's calendar that I got today defines "hobby" as "work you do at your own expense, that you wouldn't do for pay." We need hobbyists like Donald Tuck and the others whose better work I try to describe here from time to time. If you want to lend a hand, Tuck's own address is: Donald H. Tuck, 139 East Risdon Road, Lindisfarne, Tasmania.

THE END

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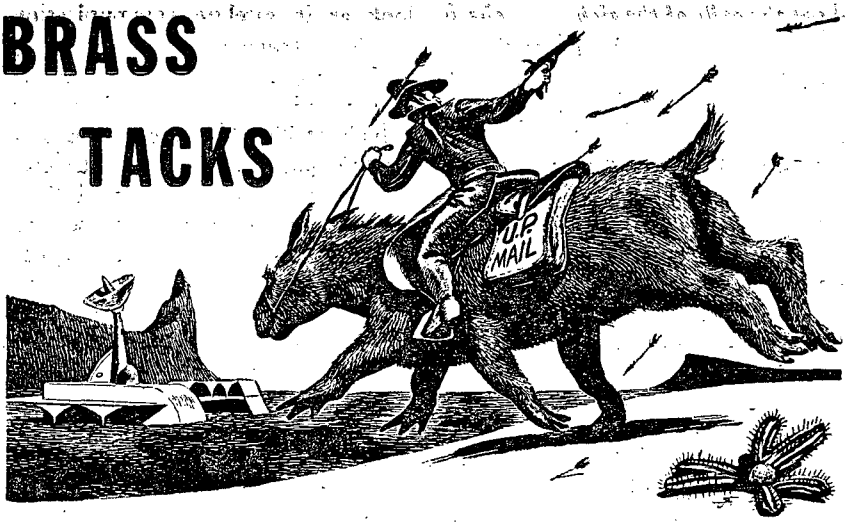
BRASS TACKS



Many letters anent "Constitution For Utopia" strongly suggested that the "rich" were not to be trusted with running a government, since they were selfish, greedy, and not given to general human welfare.

The degree to which modern intelligent Americans swallow propaganda without thought, and reject thought on the basis of pre-digested propaganda is either amusing or amazing. The suggestion in "Constitution for Utopia" was that only those in the top 20% of earned annual income be allowed to vote. Diligent efforts to determine the actual dollars-per-year that represents the 80th percentile level in the United States at present has been handicapped by the fact that various government agencies define terms differently, and so the figures don't cross-check. However, the range of figures was from $6,500 per year to $9,200 per year.

Now since we have just recently completed a reader survey, I am in a position to say that you readers are selfish, greedy and not given to general human welfare—according to your own letters!—since the average income of the readers is $9,750 per year.

You and the rest of that tight little oligarchy of the rich 20%, moreover, can meet in some secret room somewhere . . . if you can find a secret room that can contain some 20,000-000 people. Look . . . let's be reasonably rational about this! Any *20% of the population of this nation is a hullavalot of people; it's not exactly a "tight little clique of rich" people!*

And before you start blowing off

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about the evils of the rich . . . check up and find out whether you're damning yourself! *The Editor.*

Dear John:

Was I surprised and pleased to see your article, "They Do It With Mirrors," in the December Analog! I think it's a fine job, and I hope you won't mind remarks on a few additional points, and on one or two minor matters which got slightly confused.

Although I believe that I had a good deal to do with its generation, Echo is a National Aeronautics and Space Administration project in which the Bell Labs have participated. NASA paid for the satellite and the launching and pays Bell Laboratories for the operating costs of carrying out communication experiments. The Bell Laboratories paid for the equipment on Crawford Hill, which your illustrations show. This was just the way things worked out in this first communication experiment. The American Telephone and Telegraph Company, which, together with Western Electric, owns Bell Labs, is quite willing to foot the cost of further research and development—as you point out, with commercial service in mind.

I think it's worth noting that while I published a technical article on balloon communications satellites—and other kinds—in 1955, Arthur C. Clarke published one on active—containing radio equipment—communication satellites in 1945. But that was after Venus Equilateral. However you look at it, satellite communication has SF parentage.

The maser receiver is so sensitive that the microwave radio radiation of a body at 25° Absolute cannot only be detected; it doubles the noise output. However, the 300° earth isn't so bad in comparison as you indicate. The *total* thermal radiation increases as the fourth power of the temperature, but the part in the fixed bandwidth of the receiver increases only directly as the temperature. The fourth power comes about because higher frequency radiation increases with increasing temperature.

While tracking did fail on some later passes, we tracked the balloon successfully the first time around. That was when President Eisenhower's message was transmitted. The original tape recording of the message as received is loud and clear, though it was rather noisy as rerecorded and broadcast by some radio and TV stations.

Signals from Echo were picked up in England by the Royal Radar Establishment and by the British Post Office, as well as by Jodrel Bank and by CNET in France. In this country we communicate with the Naval Research Lab at Stump Neck, Maryland as well as with JPL.

We're steaming ahead toward a commercial communication system, but that will take some years and the right relations with the telephone systems of other nations—as well as continued co-operation with NASA. Did you know that the cable to Scotland is owned jointly by the AT&T

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and the British Post Office, which gives Great Britain telephone service? It looks now as if we will use active repeaters containing microwave transmitters and receivers rather than balloons.—John R. Pierce, Bell Telephone Laboratories, Murray Hill, New Jersey.

George O. Smith's "Venus Equilateral" series did present the basic idea of a radio-relay satellite to pass messages around an obstacle —the Sun in that case.

Dear Sir:

Your December 1960 issue carried a story, "The Untouchable."

The story states the bottom of the device can be touched. To turn the device off, tilt the table to slide the device onto a tray with some adhesive on it. Let the adhesive set until strong enough to support device. Rotate tray over a surface until the device decides the face of the device with the switch is the bottom. It will then drop off the tray onto the surface. The switch can now be touched. Due to the adhesive at no time did you run any risk of loss of the device. The story confirmed both friction and mass of the device in the untouchable state. The best adhesive would probably be Eastman 910.

Please avoid enigmas with obvious answers in the future. There were several other ways to do this one, including the one with the fast elevator.—Lee F. Frank, 1224 Lake Avenue, Rochester 13, New York

Is this a valid solution?

Dear John:

The National Association of Rocketry, a nationwide organization of model rocketeers, is presently conducting tests of the Dudley electric field rocket featured in the article, "The Electric Field Rocket," by Dr. H. C. Dudley, in the November 1960 issue of Analog.

Two groups are making flight tests in the western United States in high, dry climates. Other groups are working on the east coast in sea-level climates.

Winter weather has severely hampered the flight tests in all locations. Heavy snow in the east has kept rocketeers off the ranges. In the west, low temperatures and high winds have made flights impractical and dangerous to attempt. Even in testing of this type, all NAR members must abide by the NAR rules . . . and the rules say no flying in bad weather.

We had hoped that we could release data to you by this time, since we know it is of interest to your readers. But we can't control the weather yet, and we must therefore ask your patience. As soon as the data is collected from the testing groups, it will be forwarded to you.—G. Harry Stine, President & Trustee, National Association of Rocketry, 11 West 42nd Street, New York 36, New York.

The data will be published as soon as weather permits gathering it!

Dear Mr. Campbell:

Let's kick the problem of voting

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around as suggested in your editorial for the March, 1961 Analog.

The following idea is not original. (Cribbed from Nevil Schute.) The actual reasons for the various additional votes is my own adaptation.

Every man and woman born and living under the system of government you are attempting to set up is given one vote for whatever little contribution they have made to the Utopia, be the contribution hero type or villianous. (Both contribute you must admit.)

BUT each citizen of the Utopian republic is given additional votes for the following reasons: (One vote for each reason they qualify for.)

1. Income in the top 20% of the nation.
2. For each degree above the usual Bachelor's on a graduate level.
3. Service in the armed forces during actual war.
4. For remaining married to the same spouse more than ten years.
5. For living outside the territorial limits of their home country for one year or more.
6. One vote to each parent for the first two children, but not any following.
7. For any service to the republic which may be voted to them by the national legislative body. (This reason not open to political office holders or their families.)

Voting should start when a man is old enough for military service and should be extended to women on the same basis. All votes could be lost for the same reasons as we have today.

Under this system each citizen could qualify for a maximum of eight votes. This system should also encourage the qualities you suggest. (I could only qualify for five under the system above.)—Jack Pulliam, 4410 Travis, Houston 2, Texas

Difficulty is—suppose an individual "earns" extra votes as follows:

3. Because he was conscripted under threat of prison.

4. Because he was too lazy to change.

5. Because people were looking for him at home.

So he has like votes just like you!

Dear Mr. Campbell:

I tried, but I just couldn't resist. With everyone else expressing their opinions on nearly everything, I just had to get my four cents worth in.

Upon my monthly perusal of your magazine—after wresting it from my wife's feverish grip—I came across Don Culp's letter in the March 1961 Brass Tacks department. His guess as to the identify of Mark Phillips prompted one of my own. Mine is based on much the same thing as was Mr. Culp's.

It seems that Mr. Phillips mentioned one of my favorite characters in "Occasion for Disaster." On page 127, Analog, January 1961 issue, Malone was examining several of the nation's newspapers when he came across an article in the New York *Post* telling of action by that city's

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mayor. The follow-up ". . . story on page three had a little more detail: MAYOR AMALFI ORDERS . . ." Amalfi? Hm-m-m! What a strange name . . .

According to James Blish, in his book "Earthman, Come Home," published by Avon, also of 575 Madison Avenue, John Amalfi didn't become mayor of New York until about 3110. But he *"did"* become mayor of New York! Is this mere coincidence? I hardly think so. Instead it seems to me to be an expression of fondness for a character from the two-part book "Cities in Flight" which, I am sorry to say, was never published. Hence, my conclusion—that Mark Phillips is none other than a familiar friend of fiction fame . . . James Blish. Comments?—A. L. Overton, Jr., 2248 Bissonnet Street, Houston 5, Texas

Nope—and "he" isn't Isaac Asimov, though Harry Seldon was building the second foundation for another gambling hall.

Dear Mr. Campbell:

Your March 1961 article on "Utopia," plus previous articles in which you have cleared away a lot of sentimental and semantically fuzzy thinking, seems to conform to what I understand is pretty well agreed on by most erudite students of government. All governments, regardless of type, govern by the *consent* or at least *tacit acquiescence* of the overwhelming majority of those governed.

Presumably the corollary is that when a substantial minority is in violent non-consent plus a majority in moods ranging from *tacit discontent* to *sullen acquiescence*, that government is due for a change.

Darwin's much misquoted and distorted "Law of Survival" applies to all biospecies, including man, and must also affect government. Let's try a properly stated and properly *emphasized* version of this Law.

"Under *any given set of conditions,* the fittest will thrive".

"When *conditions change,* those formerly fittest, *may* no longer be fittest. If they are *not,* they will cease to thrive and someone else will become fittest and thrive."

Utopia must recognize that only those fittest to govern under any *given set of conditions* can obtain the *consent* of the overwhelming majority of those governed. But since change in conditions is inevitably constant, change in those fittest to govern is also going to be constant. Who is to judge when these changes in governors should take place? Obviously the *governed*, since without their overwhelming consent or tacit acquiescence no government can operate efficiently or peacefully for very long.

Utopia must provide a mechanism which will (1) determine when changes must be made among the governors, and (2) provide for an orderly transfer of governing power. The mechanism for achieving these two objectives must—alack and alas—have its forms and procedures

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rooted in the prevailing culture of the governed, to *assure consent* of the governed. Unfortunately this prevailing culture is and always will be a changing thing. So the mechanism must also have a built-in correlating device to keep its forms and procedures changing as the culture changes.

However, even though I'm satisfied that the "purpose specifications" just outlined for the mechanism are correct, somehow they remind me of a dog chasing its tail. Utopia is a far distant dream to be approached step by step from as many different directions as there are distinctly different cultures.

Note that in "Ultima Thule"—March 1961 issue—and previous stories dealing with this theme, the secret manipulator always achieves his results by following the "Law of Survival" as properly stated. The agent subtly alters conditions so that those currently governing are no longer fittest to meet the changing conditions. In Utopia he could achieve the same end results via the same techniques, but the transfers of government power would be peaceful and orderly, no matter how fast the sequence of transfers had to become.—Charles J. Deegan, #10,417 Remington Lane, Dallas, Texas.

The changes would be automatic on the Income Rule. Those who are most keenly aware of what the conditions are—not what they used to be!—will succeed best in their personal affairs. That's why current earned income—not inherited—is the decisive factor.

Congratulations Mr. Campbell,

Assuming the purpose of the "Utopia" editorial was not only to produce live discussion in the Brass Tacks pages, but to so thoroughly shock the senses of ASF fans that your office will be pseudo-pod deep with indignant rebuttal, you have no doubt accomplished this purpose. I am sure many men more learned than I will have very precise and devastating criticisms of the editorial. I would merely like to get my petty grievances off my chest so that I may return to bed with a clear conscience.

I object to: 1.) You almost completely ignore what seems to me to be the basic issue. What is the *purpose* of this society? When you speak of optimum form of government, this means nothing in itself. Many slave plantations were "Optimum" for the particular purpose of growing cotton most efficiently. The slaves were often well fed, well cared for, and happy in their ignorance. What is the relationship of the individual to this society? And 2.) I will leave it to others to quarrel with the rational vs. irrational test, but assuming that we do adopt the irrational form, the question of wealth is about the worst criterion I could imagine. The head-in-the-clouds view that because a man is wealthy it necessarily follows that he is benevolent is nonsense, as amply demonstrated by conditions in the United States before antitrust and monopoly legislation.

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What a shallow, morbid society where the acknowledged criterion of success is wealth—where the scientist is not free to work on his theory, but must abandon this in order to earn enough money to insure his right to experiment unhindered—where the teacher cannot teach logical reasoning and intellectual self-reliance, but must indoctrinate his pupils with his own political philosophy in order to have a voice in society—where the rulers or those with money will, according to uncampbellized laws of human nature and all human history, strive to keep their money and their rule. Money will mean rule, but let us not be so naive as to think that rule will not also mean more money.

Any asteroid upon which Ricky Nelson rules and Dr. Einstein obeys, is one asteroid that could succumb to Jupiter's mighty pull without a single tear being shed from this quarter.—Don Symons, A205 Rather Hall, Michigan State University, East Lansing, Michigan.

1. Define the purpose of a society . . . and you freeze it into an unbreakable mold. Only it then is sure to get smashed from without. Vide *Her Hitler and his Thousand Year Reich . . . that made it for a bit over one thousand days. No definitions of purpose; let men find their own as they go and grow.*

2. You misread; I didn't say "rational" and "irrational." I said "logical" and "nonlogical." Pragmatism is rational—but nonlogical. The two terms are NOT synonymous.

3. I didn't say the high earners were necessarily benevolent—but that, statistically, they would be. Which is all that's needed in a majority voting system! Who started the Minimum Daily Wage idea? The world's wealthiest—earned income type!—Henry Ford. It's the inherited wealth type that demands status quo *setups.*

4. "Where the scientist isn't free to work on his theory, but must earn enough money . . ." Are you kidding, or naive to the point of stupidity? Or don't you read the current, loud, consistent complaints of scientists that they can't do fundamental research because neither company nor government will finance it? AND that the patent system keeps them from earning money themselves! Look back fifty to one hundred years, when scientists did have to earn their own money—like Edison, Alexander Bell, George Westinghouse. Could . . . and DID!

5. "Where the teacher can't teach logical reasoning . . . et cetera." Again—I hope you're consciously kidding. A modern teacher can't even smoke, or have a cocktail, or speak his mind, without having the PTA or Un-American Affairs Committee or somebody disciplining him for not preaching the orthodox Togetherness.

6. On this here asteroid, friend, Jimmy Hoffa rules, and Dr. Einstein winds up wishing he'd been a plumber. Or may be you like it that way?

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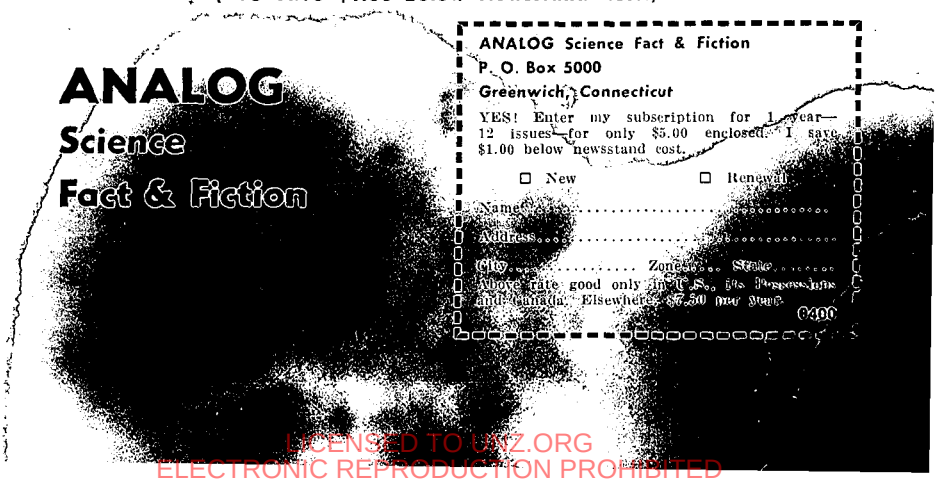
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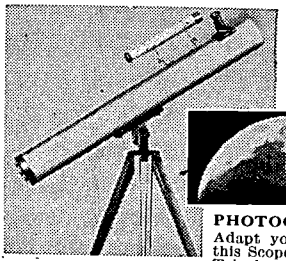

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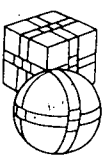

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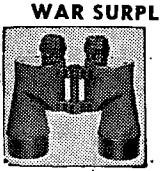

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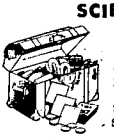

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